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ELEMENTARY PRINCIPLES OF HARMONY

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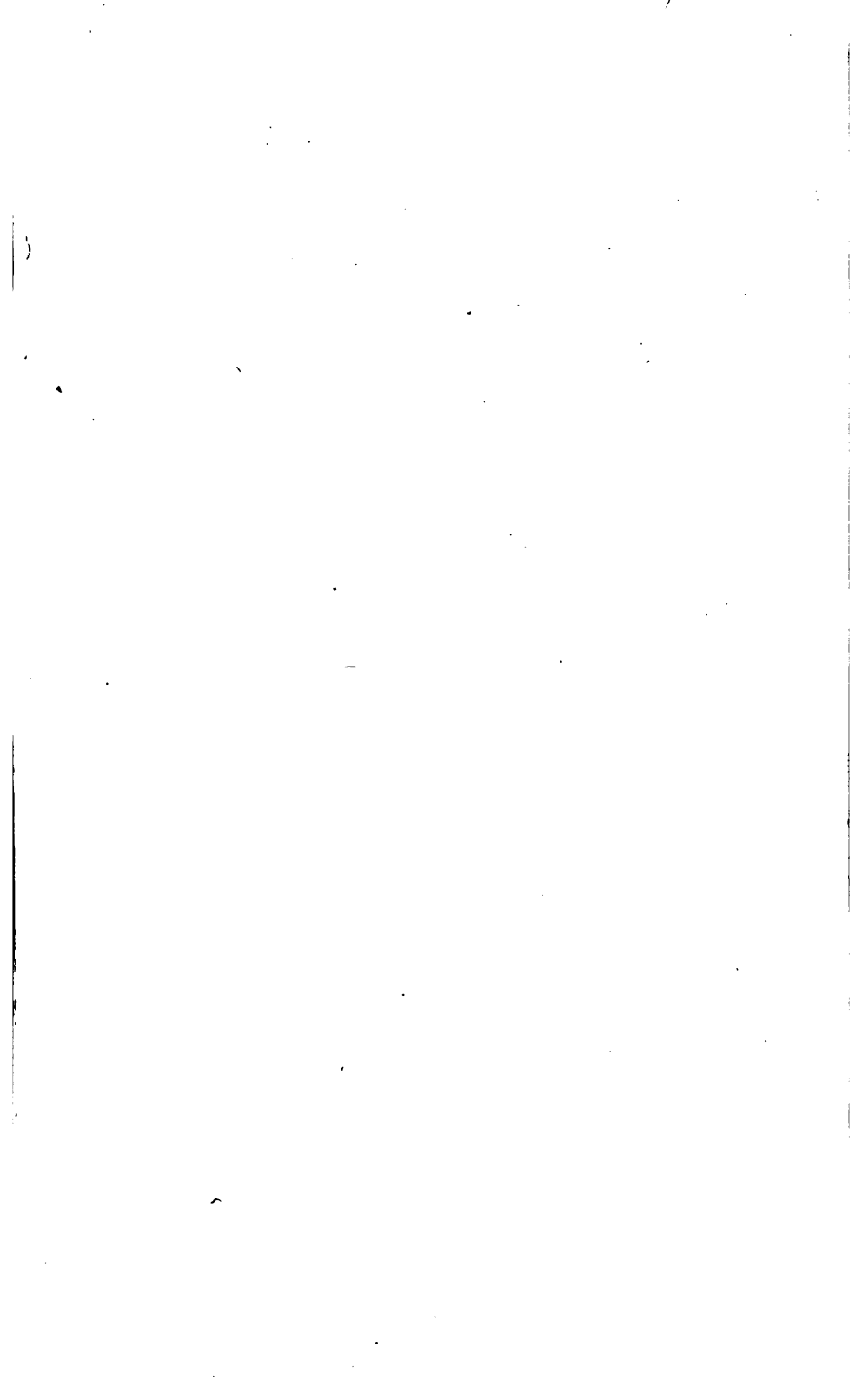
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ELEMENTARY PRINCIPLES OF HARMONY

FOR

SCHOOL AND SELF-INSTRUCTION

BY

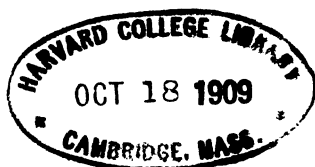
DR. S. JADASSOHN

=

*PROFESSOR AT THE ROYAL CONSERVATORY
OF MUSIC, LEIPZIG.*

BREITKOPF & HÄRTEL

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Warren A. Locke,
Cambridge

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PREFACE.

This book contains a well-arranged, progressive course of instruction in harmony, on the exact plan I have chosen for my pupils at the Royal Conservatory. Many years of experience have proved to me, that not all who commence the study of harmony have the necessary preliminary knowledge.

On this account, I have prefaced the study of the chords and their connections with a brief introduction to the study of harmony, which aims to thoroughly prepare the pupil for the following theoretical studies.

As I have embodied in this book in an elucidative and detailed manner what I instruct orally, I feel fully convinced that I, thereby, assist others to comprehend and to impart my mode of instruction. All exercises in this book are accompanied by examples, which exhibit to the pupil the practical application of the rules. For the practical working out of the given exercises, precise hints are added for the leading of the voice in general; and, in particular cases, for the use of the close position, for a modulatory passage, as also for other necessary matters. By comparing his own working out of the exercises with the examples accompanying these, the pupil can fashion his work thereby, and more easily make improvements and emendations in the same. In this respect, the book is also well adapted for self-instruction.

DR. S. JADASSOHN,

PROFESSOR OF MUSIC.

Leipzig, 1894.

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INTRODUCTION TO THE STUDY OF HARMONY.

Tones and their Transpositions to Different Octaves.

§ 1. Music consists of twelve tones, seven of which are principal or natural, and five secondary, derived from these. The names of the principal tones are : C, D, E, F, G, A, B. By placing signs called notes on five parallel lines, the height, depth, and length of the tones is indicated. The five lines are called the staff. At the beginning of a staff, a special signature is placed on a certain line fixing the name of one tone from which all others are diatonically noted. Should the staff not be sufficient, leger lines are added above and below it ; thereby extending the compass. Two clefs are at present used : the treble and the bass clef. The first is also called the G clef, and the latter the F clef. The curve of the treble clef is made on the second line of the staff, on which the note representing the tone G is written, thus :



The Seven Principal Tones of the Diatonic Scale are :



The distance from one tone to another in this scale-succession is not equal; we distinguish the whole-step from the half-step. A whole-step is that distance between two adjacent tones of a scale, between which (by a chromatic alteration of one or the other) another tone is found: if no tone lies between them, it is a half-step. For chromatic changes, signs called accidentals are used. A natural tone is raised a half-step, by placing a sharp (\sharp) before it; and lowered a half-step, by placing a flat (\flat) before it. The natural (\natural), as we shall show farther on, is used both for raising and lowering an altered tone.

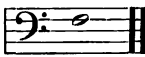
§ 2. Derived Tones

and their names are shown in Exs. 3 and 4. Ex. 3 exhibits the derived tones obtained by raising the natural tone: Ex. 4, by lowering the next upper tone to the natural tone.

3. 
C $c\sharp$ D $d\sharp$ E F $f\sharp$ G $g\sharp$ A $a\sharp$ B

4. 
C \flat b D \flat b E F \flat b G \flat a A $\flat\flat$ B.

Successions of this kind (in half-steps) are called chromatic scales; successions of whole and half-steps in a certain order, diatonic scales. If the highest (twelfth) chromatic-step is succeeded by a half-step *upward*, the first (lowest) tone appears again, but an octave higher. The distance from C to C is called an octave. The chromatic scale as well as the diatonic scale, as shown in Exs. 2, 3, and 4, can recur in higher or lower octaves. For the lower octaves the bass clef (F clef) is used, thus:

5. 
F

By means of both clefs, all transpositions of the chromatic scale can be exhibited, as in Ex. 6. We will annex the names of

the different octaves, and, instead of using excessive and unnecessary leger-lines, simply use the sign *8va bassa* (written below the notes) for the lowest seven tones; and for the highest fourteen notes, the sign *octava* (written above them).

6. Contra octave. Large. Small.

8va bassa

C D E F G A B C D E F G A B c d e f g a b

One-lined. Two-lined.

c b e f g a b c d e f g a b

8va Three-lined. Four-lined.

c d e f g a b c d e f g a b

The chromatic changes can also appear throughout the table just presented. For several tones of the small- and one-lined octave, the treble, as well as the bass clef may be and often is used.

The Major Scale and its Transpositions.

§ 3. If we add an eighth tone to the scale in Ex. 2, (the repetition of the first tone, an octave higher,) the result will be the regular modern major scale, in which all tones of the complete major mode can be found. This scale is named the C major scale, because it is derived (and built up) from the tone C. The distance from one tone to another in the preceding major scale will give the following result, viz. : from C to D, a whole-step (hence a chromatic alteration is found between either $C\sharp$ or $D\flat$); from D to E, a whole-step; from E to F, a half-step; from F to G, G to A, A to B, whole-steps; from B to C (the octave of the first tone), a half-step.

The regular major scale can also be formed from any other principal or derived tone, as shown in Ex. 7 :

Major scale of C.



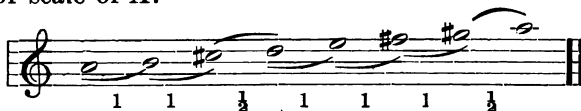
Major scale of G.



Major scale of D.



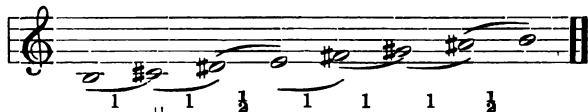
Major scale of A.



Major scale of E.



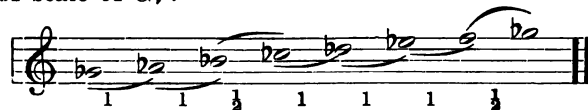
Major scale of B.



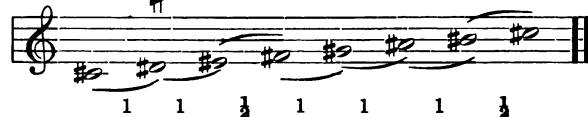
Major scale of F#.



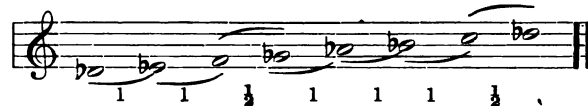
Major scale of Gb.



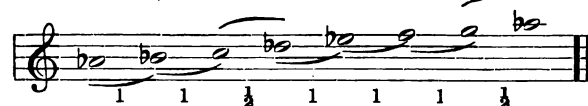
Major scale of C#.



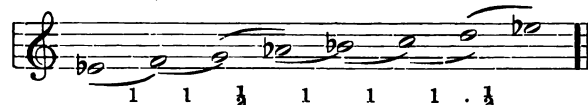
Major scale of Db.



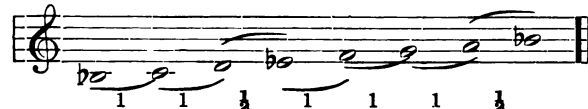
Major scale of Ab.



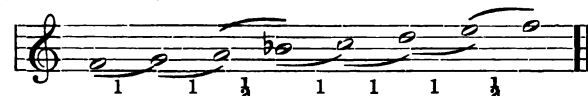
Major scale of Eb.



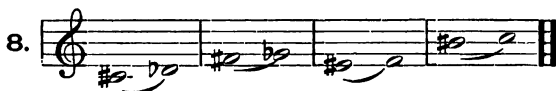
Major scale of Bb.



Major scale of F.



The scales of $C\sharp$ and $D\flat$, and of $F\sharp$ and $G\flat$, can be written in two ways: with different accidentals. Tones seemingly alike in pitch, as $C\sharp$ and $D\flat$, $F\sharp$ and $G\flat$, $E\sharp$ and F , $B\sharp$ and C , are called *enharmonic tones*.



Therefore, the scales in the keys of $C\sharp$ and $D\flat$, $F\sharp$ and $G\flat$ major, can be written (in technical language) *enharmonically*.

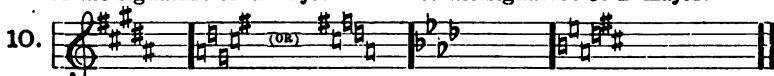
Though all these scales are but transpositions of the C major scale, we have practically twelve keys. To prevent the repetition of transpositional signs in each measure of a key other than that of C major, so many transpositional signs are placed at the beginning as are necessary in all the other keys respectively. We will show in Ex. 9 in what manner the chromatic signs are used (placed) in the signature:



Should the key change in one or several places of a composition, the signature so far maintained will be cancelled, and the signature of the new key be prefixed; (i. e.: for a fixed modulation).

The signature of B major changed to the signature of G major.

The signature of A \flat major changed to the signature of D major.



Various Kinds of Time : the Value of the Notes and Rests.

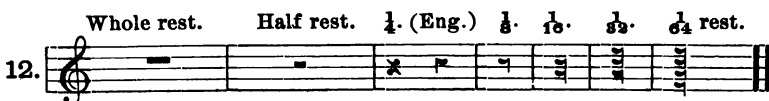
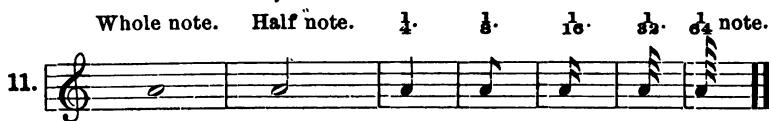
§ 4. The sign for the time-rhythm is placed after the signature.

or *Alla Breve Time*.

Four-four Time; (also called *Common Time*).

Three-four Time.

The value of the notes is represented by the different ways of forming them : in this manner also the rests are noted.



The value of a note is increased by one-half if a dot be added after it, thus :



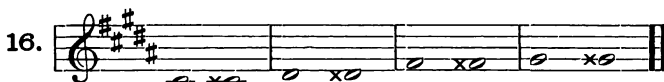
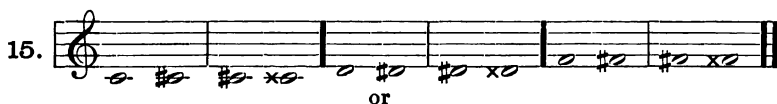
Notes written as in Ex. 13*b*, connected by a tie, are sustained (not struck again). A group of any three notes having the same value of two of the same is termed a triplet; in like manner, a group of six notes, a sextuplet, thus :



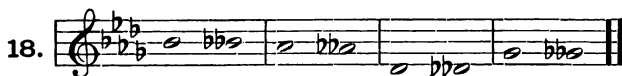
Intervals.

§ 5. An interval is the space intermediate between two tones. The smallest interval is the half-step; among these are distinguished the large and small half-step. The large half-step is formed by the chromatic alteration which an accidental produces upon a note. To raise a natural tone a large half-step, the sharp (\sharp) is used; to lower it, the flat (\flat). A tone lowered by a flat (\flat) a half-step is raised a large half-step by prefixing the natural (\natural). A tone raised by a sharp (\sharp) is lowered a large half-step by prefixing the natural (\natural).

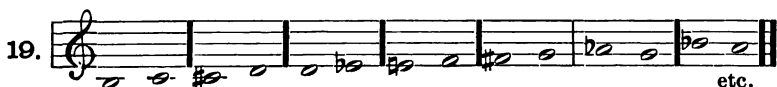
A tone raised a large half-step by a sharp (\sharp) can be raised another large half-step by prefixing the double-sharp (\times) alone, in place of the sharp.

Large Half-steps Formed by the \sharp and \times .

A natural tone lowered by a flat can be lowered another large half-step by prefixing the double-flat ($\flat\flat$).



The small half-step is found only between two adjacent tones, thus :

Small Half-tones.

Measurement of Intervals Upward.

§ 6. The diatonic major scale contains the *normal intervals*. The fundamental tone of any scale is termed the prime, to determine its relation to other tones. The prime (see Ex. 20) is not an interval, but a unison, because the tones are on the same "pitch-degree." If \bar{c} is taken as prime, the distance from \bar{c} to \bar{d} is a second; \bar{c} to \bar{e} , a third; \bar{c} to \bar{f} , a fourth; \bar{c} to \bar{g} , a fifth; \bar{c} to \bar{a} , a sixth; \bar{c} to \bar{b} , a seventh; \bar{c} to \bar{c} , an octave, (or eighth). Tones which exceed the octave of the prime, as \bar{d} the ninth, \bar{e} the tenth, \bar{f} the eleventh, \bar{g} the twelfth, are transpositions of the second, third, fourth, and fifth into the next upper octave.

Normal Intervals.

20. Prime, (unison.) Second. Third. Fourth. Fifth. Sixth.

Seventh. (8th) Octave. Ninth. Tenth. Eleventh. Twelfth.

The prime, fourth, fifth, octave, eleventh, and twelfth, are perfect intervals.

Perfect Intervals.

21. Perfect prime. Fourth. Fifth. Octave. Eleventh. Twelfth.

The other remaining intervals between these are large intervals.

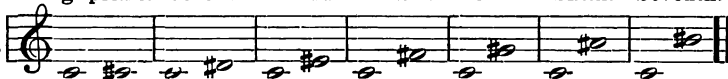
Large Intervals.

22. Large second. Third. Sixth. Seventh. Ninth. Tenth.

An augmented interval is formed by raising the upper tone of a normal interval a large half-step. An augmented prime is possible by raising either one or the other tone a half-step, but can only be used as a melodic succession, and not in chord-structures.

Augmented Intervals.

Aug. prime. Second. Third. Fourth. Fifth. Sixth. Seventh.

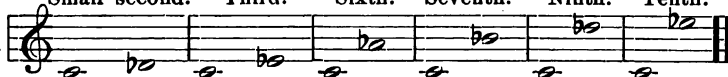
23. 

Augmented sevenths and octaves appear neither in melodic successions nor in chord-structures.

By lowering the upper tone of large intervals a large half-step they become small intervals.

Small Intervals.

Small second. Third. Sixth. Seventh. Ninth. Tenth.

24. 

By raising the upper tone, or lowering the lower tone of a diminished interval a half-step (in so far as the chromatic signs b , \sharp , and \times permit), a small (or perfect) interval results. Diminished intervals (in a key with a signature of flats) are usually formed by raising the lower tone a large half-step.

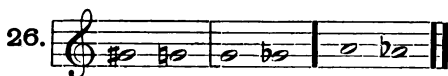
Diminished Intervals.

Dim. thirds. Fourths.

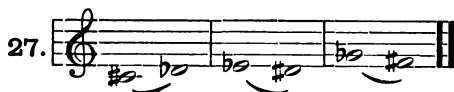
25. 

Fifths. Sixth. Seventh.

Diminished and augmented primes only occur in melodic progressions.

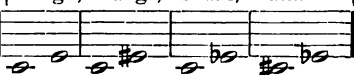


Diminished seconds do not form intervals, but are enharmonic tones.



We now give a table of all the intervals which occur in the formation of chords.

Table of Intervals.

Perfect prime.	Seconds. large, aug., small.	Thirds. large, aug., small, dim.
28. 		

Fourths. perfect, aug., dim., (or) dim.	Fifths. large, aug., dim., (or) dim.
	

Sixths. large, aug., small, dim.	Sevenths. large, small, dim., (or) dim.	Octave. perfect.
		

Diminished octaves, as well as large and small ninths, only occur as suspensions, viz :



The pupil must now write all the intervals (as shown in Ex. 28) from all tones, and he must be especially careful to correct the notation (or accidentals used). For this purpose, we give the table 28 again in Ex. 30 : here the intervals are measured from other fundamental tones.

30.

Prime.		Seconds.			
perfect.		large,	small,	aug.	

Thirds.				Fourths.			
large,	small,	dim.,(or)dim.,	aug.	perfect,	aug.,	dim.,(or)dim.	

Fifths.				Sixths.			
perfect,	aug.,	dim.,(or)dim.		large,	aug.,	small,	dim.,(or)dim.

Sevenths.				Octave.
large,	small,	dim.,(or)	dim.	perfect.

The pupil should so accustom his ear to the pitch of the different intervals, that he can always recognize them.

Consonances and Dissonances.


Perfect intervals are perfect consonances; the large and small thirds and sixths are imperfect consonances; all other small, augmented and diminished intervals are dissonances.

Double Measurement of Intervals.


§ 7. In considering the relation of two tones to each other within the compass of an octave, the perfect intervals above will also form perfect intervals below, thus :

31. 
 Perfect fourth. Perfect fifth. Perfect octave.
 Perfect fifth. Perfect fourth. Perfect prime.

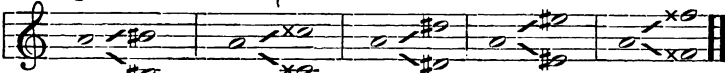
Large intervals inverted form small intervals.

32. 
 Large second. Third. Sixth. Seventh.
 Small seventh. Sixth. Third. Second.

Small intervals inverted form large intervals.

33. 
 Small second. Third. Sixth. Seventh.
 Large seventh. Sixth. Third. Second.

Augmented intervals inverted form diminished intervals.

34. 
 Augm. second. Third. Fourth. Fifth. Sixth.
 Dim. seventh. Sixth. Fifth. Fourth. Third.

Diminished intervals inverted form augmented intervals.

35.

Dim. third.	Fourth.	Fifth.	Sixth.
Aug. sixth.	Fifth.	Fourth.	Third.

We now give a table of all the perfect upper and lower intervals : in this manner should the pupil practice, transposing them to the different fundamental tones.

36.

Prime. perfect.	Seconds. large, small, aug.	Thirds. large, small, aug., dim.
Octave. perfect.	Sevenths. small, large, dim.	Sixths. small, large, dim., aug.

Fourths. perfect, aug., dim., (or) dim.	Fifths. perfect, aug., dim., (or) dim.
Fifths. perfect, dim., aug., (or) dim.	Fourths. perfect, dim., aug., (or) dim.

Sixths. large, small, aug., dim.	Sevenths. large, small, dim.	Octave. perfect.
Thirds. small, large, dim., aug.	Seconds. small, large, aug.	Prime. perfect.

HARMONY.

PART FIRST.

THE TREATMENT OF FUNDAMENTAL CHORDS* AND THE ART OF COMBINING THEM.

CHAPTER I.

The Triad.

§ 8. A Triad is formed by placing a third and a fifth above a fundamental tone. A chord thus constructed, having no dissonance, is called an independent chord, and can occur at the beginning, as well as at the end of a composition.

Independent Triads.



A chord containing one or more dissonant intervals is called a dependent chord. The chords in Ex. 38, containing augmented or diminished fifths, are, therefore,

Dependent Triads.

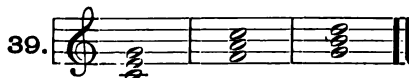


* Chords are classified as fundamental and derived (altered) chords. Accidental chords and suspensions will be explained farther on. The expressions "chord" and "harmony" are equivalent.

Independent chords are of two kinds, viz :

Major (hard) Triads

formed with major third and perfect fifth :



and

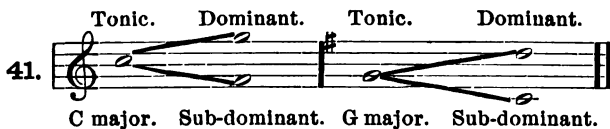
Minor (soft) Triad

formed with a minor third and a perfect fifth :



So far, we have only explained the major triad, as in Ex. 39. We take for the present C major, as the dominating key.

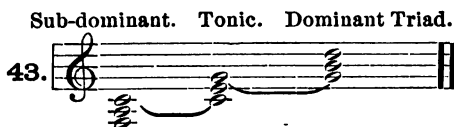
The three major triads will be found on the first, fourth, and fifth degrees of the scale. These three chords have special technical names : The chord on the first degree is called the Tonic ; on the fifth degree, the Dominant ; and on the fourth degree the Sub-dominant.



These three important chords, called Primary Triads, comprise all the tones of the diatonic scale, and, if properly connected, are sufficient to establish the key.



The direct (close) relation of these chords to each other, is shown in Ex. 43.



The Connection of Primary Triads in Four-voiced Writing.

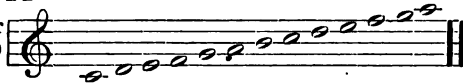
§ 9. Nature has provided mankind with four kinds of voices ; therefore, the chorus based on four-voiced harmony corresponds best with nature, and we shall connect the chords as if they were to be sung by four voices, called Soprano, Alto, Tenor, and Bass ; (i. e. : in descending order).

The compass of the different voices is best represented as follows :

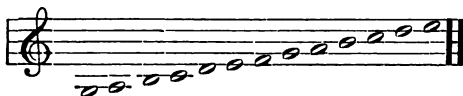
Compass of the Voices in Four-voiced Chorus:

44.

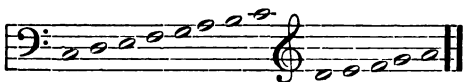
SOPRANO. (For high female or children's voices.)



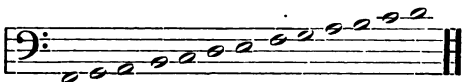
ALTO. (For low female or children's voices.)



TENOR. (For high male voices.)



BASS. (For low male voices.)



With regard to the various registers of the voice, the Soprano is written on the highest staff ; underneath it, the Alto, on the second ; the Tenor, on the third ; and the Bass, on the fourth staff. The Soprano and Bass are called outer voices ; the Alto and Tenor, inner voices.

If sung by a four-voiced chorus, one tone of the triad must be doubled, i. e. : sung by two different voices, either in unison, in the octave, or in the double octave. The fundamental tone is best suited for doubling, the fifth less so, and the third least of all ; because, whether major or minor, it predominates in determining the character of the triad. It is by no means asserted that the third should never be doubled ; in some cases doubling is necessary and even unavoidable.

We will now exhibit the various ways in which the tonic triad of C major can be written, the Bass containing the fundamental tone (C) of the triad throughout :

45.

1. 2. 3. 4. 5. 6.

C: I - - - - -

An arrangement of this kind, where each voice has its own system (staff), is called a score. We, however, need not use this full manner of writing in our first harmony studies ; but only write on two systems, as we are accustomed to write for the Pianoforte. This method is especially simple and easy for the pupil (beginner). The representations of the tonic triad of C major exhibited on four systems in Ex. 45, is now given in Ex. 46 on two systems :

46.

1. 2. 3. 4. 5. 6.

C: I - - - - -

In both examples (45 and 46) we see that the fundamental tone C is most frequently doubled in the three upper voices. Measures 3 and 4 show the chord with doubled fifth; measures 4, 5, and 6, with doubled third. In the first five measures, the three upper voices are so close together, that the distance from the Tenor to the Soprano does not exceed an octave. This arrangement of the voices, is called **close position**. **The open position** appears in the fourth and last measures. In these measures, the Tenor is farther than an octave from the Soprano.

Ex. 47 represents the dominant and subdominant triads of C major in both close and open positions:

47.

Close position. Open position. Close position. Open position.

C: V C: IV

Connection of Chords.

§ 10. For the connection of chords the following rules are given. In connecting two chords in which there is a common tone, it should be retained in the *same voice*. Such common tones are usually and best connected with a tie. The other voices should be led to the nearest lying tones of the new chord, as exhibited in Ex. 48.

48.

C: I V I V I V C: IV I IV I IV I

Should two chords have no common tone, as is the case between chords (triads) situated only *one step apart*, the voices

should be led in such a manner, that they proceed neither in unisons (octaves), fifths, nor twelfths. In Ex. 49, these errors are indicated by heavy lines :

49.  Musical notation for Example 49, showing four voices (Soprano, Alto, Tenor, Bass) in parallel motion. The notation is in C major, with a key signature of one sharp (F#). The progression is C: IV V V IV IV V V IV. Heavy lines are drawn over the notes in the Soprano and Alto parts, indicating errors in voice leading.

Errors of this kind can only occur when several voices move in the same direction, and are best avoided when they do not move in parallel motion.

We distinguish three different motions of the voices :

- a. Parallel Motion.
- b. Contrary Motion.
- c. Oblique Motion.

The progression of two voices in the *same* direction, whether upward or downward, diatonically or by skips, is called *parallel motion*.

Three voices may be led in the same direction, but not in such a way that all three skip. One voice must be led diatonically. Ex. 50 shows parallel motion of two voices :

50.  Musical notation for Example 50, showing two voices (Soprano and Alto) in parallel motion. The notation is in C major, with a key signature of one sharp (F#). The progression is C: IV V V IV IV V V IV.

Ex. 51 exhibits parallel motion of three voices :

51.  Musical notation for Example 51, showing three voices (Soprano, Alto, and Tenor) in parallel motion. The notation is in C major, with a key signature of one sharp (F#). The progression is C: IV V V IV IV V V IV.

The leading of more than three voices in parallel motion in the connection of triads in four-voiced writing, must be avoided. The faulty progressions in Ex. 49, occur because all four voices move in parallel motion. Such serious mistakes can only be avoided by leading the voices in contrary motion. We have here also certain principles to observe : always lead the voices to the nearest lying tones of the new chord. For this reason,

contrary motion in Ex. 52 is faulty, because the three upper voices skip, and do not progress to the nearest lying tones :

52.

C: IV V V IV V IV

We will now show the pupil the manner in which, by contrary motion, the faulty progressions in Exs. 49 and 52 can be avoided :

53.

C: IV V V IV IV V V IV IV V V IV

When in connecting two chords one tone is retained, while the other voices proceed in any direction, the motion is said to be *oblique* (*oblique motion*). Ex. 48 shows oblique motion of *three* voices against one stationary voice. Ex. 54 shows oblique motion of *two* voices against one stationary voice.

54.

Movements in which all voices skip from one chord to another are not good. The following progressions are bad :

55.

C: I IV V I I IV IV I

Skips of all voices are only permitted when progressing to an inversion (transposition), of the same chord. In this case, all four voices can skip, e. g. :

56.

C: I — V — IV — I — — —

All three motions are shown in Ex. 48.

57.

C: I V

In Ex. 57, the Tenor and the Alto progress in parallel motion and in contrary motion to the Bass, and these three voices progress in oblique motion to the Soprano.

Examples and Exercises.

§ 11. The Roman numerals (I, IV, V) are written below the Bass, as shown in Exs. 47 and 55, and indicate that the chords are based on the first, fourth, and fifth degrees of the Scale. The Bass in the following Ex. gives the fundamental tone of the chord. The pupil must decipher and write the other tones correctly in the remaining three parts. We, therefore, give the following rules. (a) No figure is needed over the Bass note, if the Soprano must take the octave (or double octave) of the Bass; but if the third or the fifth should be taken, the Arabic numerals, 3 or 5, must be marked over the Bass.

58.

A. B. C. D.

C: I — — —

(b) The next voice, the Alto, is written under the Soprano, and presents another tone of the Triad. In Ex. 59, measures A and B, the Alto takes the fifth of the Triad, in measure C, the Tonic C, and in measure D, the third E.

The Tenor is written under the Alto, and takes the third in measures A and B, in measure C, g the fifth, and in measure D, c the octave of the fundamental.

Ex. 59 will, therefore, appear thus :

59.

A. B. C. D.

C: I — — —

Over the Bass of the first chord is frequently marked the numerals, $\begin{smallmatrix} 2 \\ 3 \\ 4 \end{smallmatrix}$ to designate the complete chord, and the positions of the three upper voices, thus :

60.

C: I — — —

C: I — — —

C: I — — —

C: I — — —

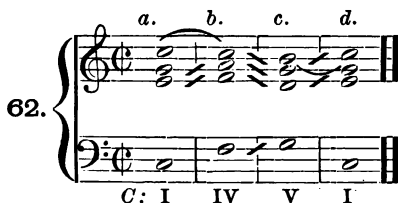
C: I — — —

All these numerical designations over the Bass-tone, are only marked for the first chord of an example. Farther on, every Bass-tone will be the fundamental tone of a Triad: to the preceding chord we will connect the other tones of the new chord, carefully observing the rules so far given for leading the voices.

We should work out the Bass of Ex. 61



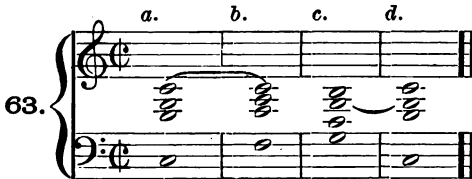
for a four-voiced chorus, as follows :



As the Bass C in the first measure (*a*) of Ex. 62. has no special figuring over it, we write (as first choice) the double octave ($\bar{\bar{c}}$) of the fundamental tone in the Soprano. The position of the Alto and Tenor will be as in Ex. 59.

The voices are led in such a way that the Soprano in measure *b* retains the tone C, this tone being common to both chords. The Alto G is led diatonically to A, (the third of the subdominant triad); the Tenor E of the first measure is led diatonically to F, the doubled tonic of the subdominant triad. Thus both middle voices are led to the nearest lying tones of the new chord. The chords of measures *b* and *c* lie only one step apart, and have no common tone. Because of this, the upper voices must be led downward against the ascending Bass, in contrary motion to the nearest lying tones of the dominant triad. In measures *c* and *d*, the connection of the dominant and tonic triads will be effected in the same way as the connection of the tonic and subdominant triads. The common tone G of the dominant and tonic triads is retained in the same voice.

The Soprano and Tenor are led to the nearest lying tones of the tonic triad. We will now give the reason for not writing the single octave of the Bass tone in the Soprano, but chose instead the double octave: had we taken the octave in the Soprano, the exercise would have been worked out as follows :



The pupil now sees, that the three upper voices have the extreme lower tones of their compass, the employment of which is never to be recommended.

This manner of writing the voices in the extremes of their compass, either high or low, is not advisable, (except when a special effect is intended) : at least, it is better not to keep them long in this position. In measure c we have overstepped the ordinary compass of the Soprano, and the Tenor has gone below the Bass.

No higher voice in the harmony-examples given here is allowed to overstep (go below) a lower voice ; above all not below the Bass tone. For the pupil's assistance in working out the following exercises, we present several examples. Only in a few of the first examples are the explanatory numerals given : (the Roman numerals below the Bass and the Arabic numerals above.) It will accrue to the great advantage of the pupil if he analyze the examples and figure the Bass himself. The numerals above the Bass are named **Thorough-Bass Notation**.



66. 67.

C: I IV V I IV I F: I V I IV V I

68. 69.

G: I IV I IV V I E: I IV I IV I V I

70. 71.

B: I V IV I V IV I E: I IV V I

72. 73.

74. 75.

76.



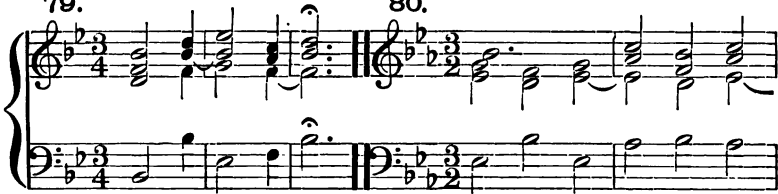
77.



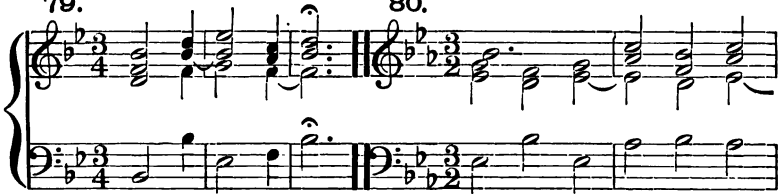
78.



79.



80.



81.



82.

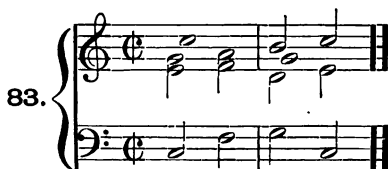


By carefully examining the preceding examples, the pupil will see that the chord before the last is the dominant triad. Such an ending, where the tonic chord follows the dominant, is called an *Authentic Close*.

When the last two chords are the subdominant and tonic triads, it is called a *Plagal Close*.

The latter is found in Exs. 66, 70, 78. The closing chord must always fall upon the first (the accented) part of a measure and new metre of a musical phrase.

Ex. 83 does not really close, because the tonic triad appears on the unaccented (second) part of the measure, and at the close of a phrase of two bars :

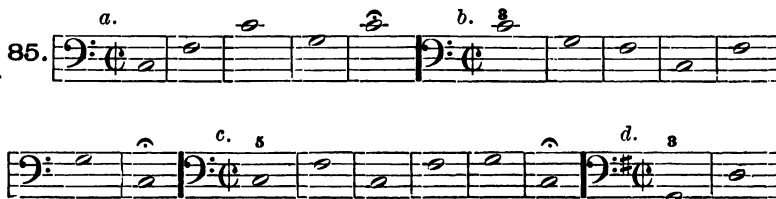


We intended it to be as follows :



The closing chord must always be the Tonic Triad.

Exercises.





We designate all secondary triads with small Roman numerals under the Bass ; the diminished triad is marked with a small numeral, and a cipher is also affixed, thus : vii° .

All the triads of the major scale are exhibited in Ex. 86.

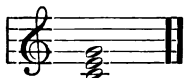
86.

Primary major. Triad of the tonic.	Secondary minor triads of the second and third degree.	Primary major triads of the fourth and fifth degree.
---------------------------------------	--	--

C: I	II	III	IV	V
Secondary minor triad of the sixth degree.		Secondary dim. triad of the seventh degree.		

VI vii°

The pupil's task is now to write these given triads of the major key in all the other major keys, and this before he undertakes to connect them. He will then see that a chord (triad) can occur in several keys, so that if he takes the tonic triad of a key, it will appear as the dominant triad of another and as the subdominant in a third key ; although the same chord has necessarily different designations in different keys. Because of this, we cannot speak in theory of a C major, G major, or F major triad ; and we shall always designate the chord



not of C major, but according to the key in which it is found, as either the tonic triad of C major, or as the dominant triad of F major, or as subdominant triad of G major.

§ 13. For the connection of the seven triads presented in Ex. 86, special attention must be given to the rules of § 10.

Therefore, if a tone is common to two chords, it is in most cases retained in the same voice. To this rule there are but few exceptions, which will be explained later.

Triads standing on degrees a third apart, upward or downward (or which is the same, a sixth downward or upward) have two common tones, thus :

87. N. B.

C: I III V II IV VI VI I III V VI I V VII^o II

The measure marked with N. B. in Ex. 87 exhibits the use of the diminished triad of the seventh degree. The seventh degree of the diatonic scale is called the

Leading Tone.

This tone received its name because of its natural tendency to lead into the octave of the fundamental tone of the scale.

How prominent this tendency is can be readily perceived by playing a scale passage, (or a phrase) which should close on the seventh degree.

88. or 89. or 90.

So long as the leading tone does not resolve into the octave of the fundamental tone, we shall not experience a satisfactory sensation, (ending).

The leading tone is especially prominent when it appears as third of the dominant triad, or as fundamental of the triad on the seventh degree, as both these chords resolve naturally into the tonic triad. If a chord contains a leading tone and resolves into the tonic triad, never double the leading tone (in pure four-voiced writing); for if this is done, both leading

mental tone of the triad on the second degree, into the octave of the fundamental tone of the dominant triad, in parallel motion :

95.

a. bad. *b. good.* good. good.

C: II V C: II V II V II V

The leading of the Soprano and Bass in Ex. 95 will give so-called

Concealed Octaves.

§ 15. Concealed octaves occur when two voices progress in parallel motion from various intervals to a pure octave, e.g. :

96

bad.

6

C: II V

The concealed octaves in the succession of the chords on the second and fifth degrees, when downward, are not faulty, as this connection does not sound harsh, e. g. :

C: II₇ V₇

Progressions of this kind will sound disagreeable in some connections, especially in the outer voices: for this reason we must avoid the concealed octaves (as in Ex. 95 of the Soprano and Bass in the outer voices) when connecting the chords on the second and fifth degrees in upward progression.

Concealed octaves which produce the doubling of the leading tone, are in all connections of chords and in all voices, faulty throughout, thus:

97.

C: II VII° IV N.B.* VII° II VII° VI VII°

When two voices progress by skips in concealed octaves, no matter in what connections and in what direction, if in outer or inner voices, or one outer and one inner voice (as well as all unnecessary skips) they are always faulty, (see § 10).

98.

bad. bad. very bad. bad. bad.

C: I V II VI VII° IV II VI II VII

bad. bad. bad. bad.

II VI VII° III II IV VII° III

* The concealed octaves at N. B. in Ex. 97 and 98 are, therefore, *very bad*, because the Bass in Ex. 97 skips an augmented fourth upward, and in Ex. 98, a diminished fifth upward. Skips like these in the connection of two chords, are not allowable, neither in the Bass nor in any other voice.

Concealed octaves caused by a skip to an inversion (transposition) of a chord, and by an interchange of the voices, are not faulty, thus :

99.

C : V — I — IV — V — V

Concealed octaves are also allowable in connecting the chords on the second and fifth degrees, when they occur between a middle voice and the Bass.

100.

C : II V

All concealed octaves that occur in the connection of chords of other degrees, especially if one of the voices progresses a half-step, are allowable.

101.

C : V I V I III VI VI II

§ 16. When two chords lie but one step apart, no common tone exists between them, and contrary motion must be used, in order to correctly connect them, as Ex. 102 shows :

102.

C : I II III IV V VI VII VIII

The image displays four systems of musical notation, each consisting of a treble and bass staff joined by a brace. The notation is in piano style, with chords indicated by letter symbols below the staves.

- System 1:** Shows two measures. The first measure is labeled *III* and the second *IV*. Above the final measure, the word "also" is written.
- System 2:** Shows two measures. The first measure is labeled *V* and the second *VI*.
- System 3:** Shows two measures. The first measure is labeled *VI* and the second *VII°*. Above the final measure, the phrase "or better" is written.
- System 4:** Shows two measures. The first measure is labeled *VII°* and the second *I*.

The pupil must have noticed that the doubling of the third is not always faulty, as shown in the example marked with "also." The measure marked with "better" (as well as all other positions of the chord on the seventh degree) shows that the doubling of the leading tone must, if possible, be avoided.

The last four measures of Ex. 102 exhibit the tonic triad with doubled third and doubled fundamental tone. All independent triads (major or minor) can appear without the fifth, as this interval is the least essential in the chord; in this case, however,

the triad must appear with doubled third and doubled fundamental, or with triple fundamental and single third; e. g. :

103.

C: I — IV II V

In some cases, we shall be *obliged* to use the triad without the fifth, e. g. :

104.

The pupil will perceive in Ex. 104, that the leading of two voices from a perfect fifth (or twelfth) to a diminished fifth, in a downward progression, is usually allowable. On the contrary, we cannot lead (as in Ex. 105) the Alto and Bass from a diminished to a perfect fifth upward, e. g. :

105.

bad. or bad.

We were forced on this account in Ex. 104, measure 3, to lead the Alto and Tenor into the third of the triad, and, therefore, write the triad without the fifth.

We now offer some examples in which the seven triads of the major scale are connected. Before the pupil undertakes to

work out the following exercises, of which only the first example is fully designated, (with Roman numerals under the Bass and Arabic numerals over it,) he should analyze and figure the examples, paying strict attention to the leading of the voices. All subsequent exercises are preceded by examples which must be studied in the same manner.

106.

C: I V VI III IV II V III

N. B.

VI IV I VII° I VI IV II V I

N. B. The upper voices can in this case be retained, or transposed upward or downward, e. g. :

107.

C: V I

or

C: V I

but not:

C: V I

See § 10, Ex. 54.

Examples.

108.

109.

110.

111.

112.

Sequence.

113.

114. 

Similar chord-connections as in Ex. 112–114 are called sequences.

115. 

In Ex. 115, measures 2 and 4, the common tone D could not be retained; contrary motion had to be used in order to avoid concealed octaves between the Soprano and Bass. These are inevitable if we retain the tone D in the Alto; moreover, the Tenor would have overstepped its voice-compass.

116. 

See Ex. 110, measures 2 and 3.

Exercises.

117. 



CHAPTER III.

The Minor Scale and its Triads.

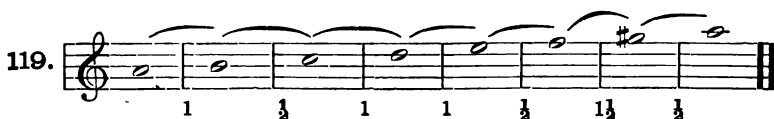
§ 17. There is in music the minor as well as the major scale. The minor scale can be formed in two ways. The one is used only melodically, and is called the *melodic minor scale*; the other is solely employed in the formation of chords, and is called the *harmonic minor scale*.

Both the relative melodic and harmonic minor scales begin with the sixth tone of the major scale. As the major and minor scales have the same signature, the a-minor scale parallel (relative) of C-major, would, without a signature, be formed as follows :



On this account, the minor scale has a different interval-formation from the major scale, and has also a different character. We have to raise the seventh degree of the minor scale a large half-step; hence, by this alteration, the seventh degree of the minor scale is converted into a leading tone. This tone is actually necessary for forming the *authentic close in minor*.

The chromatic alteration is not present in the signature, and must be prefixed in every measure where it is required: the harmonic minor scale will, therefore, be written as follows:



Harmonic A-Minor Scale. — Parallel (Relative) Scale of C-Major.

Corresponding to the a-minor scale in Ex. 119 the d-minor scale, parallel (relative) scale of F-major, will be formed as follows:



The relative minor scales of B-major and F-sharp-major, (g-sharp and d-sharp-minor) must have a double sharp (x) prefixed to the seventh degree (as the single sharp is already present in the signature), and will be formed as shown in Ex. 121.

g-sharp-minor scale.



d-sharp-minor scale.



The leading tone of the parallel (relative) minor scales of E-flat, A-flat, D-flat, and G-flat-major, must (as it is lowered by a

flat (♭) in the signature) be raised a large half-step by a natural (♮) :

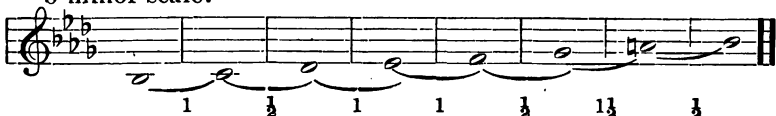
c-minor scale.



f-minor scale.



b-minor scale.



eb-minor scale.



The reason why the alteration of the seventh degree is not already in the signature can easily be comprehended. Signatures like these d-minor
c-minor
etc., are complicated and not synoptical; as, for instance, c#-minor
and, moreover, often contradict themselves :
F-minor

The pupil should write out all the harmonic minor scales according to the examples given in 119–122.

The *melodic minor scale* is formed as in Ex. 123 :

Melodic a-minor scale.



The melodic minor scale avoids the augmented second from the sixth to the seventh degree (which is especially difficult for singers to intonate) by a different succession of the intervals upward and downward. The melodic minor scale is for this reason not suited for the formation of chords. We cannot have the chords of the fourth and fifth degrees both major and minor triads in one minor scale, and the chords of the second and seventh degrees as diminished and also as major triads ; for then the chords of several keys, e. g. : C-major, a-minor, and G-major, would be mixed.

124. 

a: II° G: III C: I a: III° IV G: V G: VI a: V C: V a: vii°
C: III
e: I

§ 18. The Triads of the Minor Key on the basis of the harmonic minor scale

are formed in such a way that the primary triads, tonic and sub-dominant, are minor, and the dominant is a major triad.

125. 

a: IV I V

The dominant triad is, therefore, in both modes, (counting from the same fundamental) a major triad.

126. 

a: V A: V c: V C: V.

We find on the sixth degree a major triad, on the second and seventh degrees; diminished triads. On the third degree a new chord is found, formed of a major third and augmented fifth. It is called the Augmented Triad, and is indicated under the Bass by III° as already shown in Ex. 124, measure 4.

The triads of the minor scale are here presented in regular order, corresponding to their scale-signature: Ex. 127.

a-minor.

127. 

e-minor.



b-minor.



f#-Minor.



c#-minor.



g#-minor.



d#-minor.



e \flat -minor.

I II° III' IV V VI VII°

b \flat -minor.

I II° III' IV V VI VII°

f-minor.

I II° III' IV V VI VII°

c-minor.

I II° III' IV V VI VII°

g-minor.

I II° III' IV V VI VII°

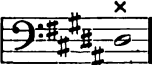
d-minor.

I II° III' IV V VI VII°

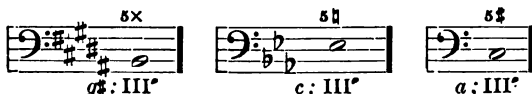
As the chromatic alteration of the seventh degree is not part of the signature, when the Bass requires a chord in which it is necessary, it must be noted over the Bass by a chromatic sign — \sharp , $\#$, or \times , as the chord and key may demand. If a chromatic alteration is placed over the Bass without a numeral, no matter whether it be a \sharp , \sharp , \times , or $\flat\flat$, it *always* refers to the third of

the chord, e. g. : this indicates that the third of
a: V

the chord must be g^\sharp .  signifies that the tone b^\flat
c: V

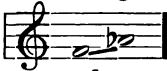

must be changed to b^\sharp .  for f^\times . When other
g#: V

intervals are to be indicated, the chromatic sign is written at the right of the figure, thus :



In place of the sharp (\sharp), it is as customary to draw a line through the figure from left to right: 5^\sharp is the same as \sharp .

All other chromatic signs must be marked, and be indicated on the left side of the number of the special interval from the Bass, i. e. : if they do not refer only to the third.

§ 19. **The connection of the Triads in Minor** is more difficult than those in the major mode ; because we cannot lead the sixth degree to the seventh. The distance between these two tones is a whole-step and a large half-step. The minor third, consisting of a whole-step and a small half-step, e. g. :  can easily be intonated in singing ; but the augmented second, which seems to be the same distance (interval), is extremely difficult and unmelodious : 

We must here inform the pupil, that the difference of pitch between *enharmonic tones* is very little. If we sought to divide a whole-tone into nine parts (commas), the small half-tone would consist of four, and the large half-tone, of five parts. The large half-tone is, therefore, a ninth of a tone higher than the small half-tone, and must also be intonated higher (sharper). For this reason, the *augmented intervals* must be carefully avoided, especially if they do not lie in one and the same chord, but appear in the connection of two different chords. In the following examples (the connection of the triads of the minor

mode), great care must be taken not to lead the sixth up to the seventh degree in one and the same voice. The following connections of the triads on the fourth and fifth degrees are all faulty, because one of the voices is lead from *f* to *g* \sharp .

128. a. bad. b. bad. c. very bad.

a: II° V II° V II° V V II° V II° V II°

Ex. 128 *b*, is doubly faulty, not only because of the augmented step in the Tenor, but because of the concealed octaves between the Soprano and Bass. These mistakes are easily avoided by contrary motion. The pupil must observe *this* rule strictly:

The connection of the chords of the second and fifth degrees in minor, must always be in contrary motion, as in Ex. 129.

129.

a: II° V II° V II° V V II° V II° V II°

§ 20. As the seventh degree (the leading tone of the minor scale) can *never* be lead downward, the connection of the triads on the fifth and sixth degrees is only satisfactory, when the thirds of both triads with their fundamental tones are led diatonically in thirds or tenths, e. g.:

130.

a: V VI

The other voices must be moved in contrary motion to the nearest lying tones of the new chord :

131.

a: V VI V VI V VI V VI

The chord on the sixth degree will *always* appear in this connection without the doubled fundamental, but instead with doubled third. If the triad on the sixth degree follows the fifth, the fundamental and fifth of the triad on the sixth degree must never be doubled, but always the third instead ; then a correct leading of the voices will be effected. Should this connection not be thus treated, we could not avoid a faulty leading ; for, if we had led the upper three voices in contrary motion to the Bass, one voice would have moved an augmented second, while the *parallel* motion of all voices would have resulted in concealed octaves and fifths :

132.

a: VI V VI V VI V

133.

good. good. good.

a: VI V VI V VI V

134.

a: I VI V I III VI II I V VI IV II V I


The first measures of 134 may be worked out as follows :

135. *a.*  *b.* 

or: 

a. : I VI V

If the first note A in the Bass had commenced an octave higher, parallel fifths would have appeared between the Alto and Bass, (see Ex. 135, *a.*), thus :

136. 

In this case, we should be obliged to write the first triad without the fifth, with *tripled* fundamental and third, or with doubled third and doubled fundamental. The former is the better choice, as three tones can be retained between the first and second measures.

137. 

a. : I VI V

That all independent triads are sufficiently indicated with fundamental and third without the fifth, (and in some cases

must be written in this manner, as shown in Ex. 102, last measures) has already been explained in § 16.

We will now give the Bass of Ex. 134 with several harmonic superstructures.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14.

138.

a: I VI V I III° VI II° I V VI IV II° V I

The pupil must observe in the movement of the Soprano, measures 5 and 6, Ex. 138, that the leading tone ($g\sharp$ in this case) has been led a half-step upward to A, which must be done if this tone forms part of the following chord ; for the augmented second ($g\sharp$ to f) upward or downward must here be avoided.

The triad on the sixth degree appears in measure 6 with doubled fundamental, f, and without doubled third. The doubling of the third in the triad on the sixth degree is necessary, however (as in measures 2 and 3, and 9 and 10), *only* when the triads on the fifth and sixth degrees are connected. The doubling of the fundamental tone (B in the triad on the second degree, measures 7 and 12) can here be written without hesitation, for B is, in this case, the second degree of the a-minor scale, and not the leading tone of C major. The employment of contrary motion in connecting the triads on the second and fifth degrees of the minor scale (as in Ex. 138, measures 12 and 13) has already been mentioned in Exs. 125 and 126.

Should we begin the given Bass (Ex. 134) with the fifth or third in the Soprano, thus :

139.

a: I VI V

or:

a: I VI V

it would have to be worked out as in Ex. 138. For the sake of further explanation, we give another harmonic superstructure of the same Bass :

140. 

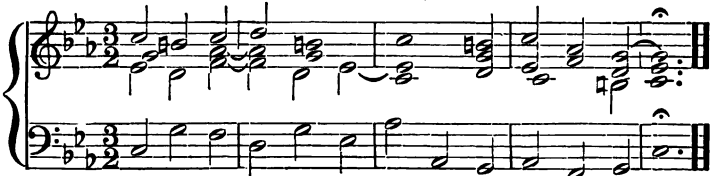
a; I VI V I III° VI II° I V VI IV II° V I

The pupil must now transpose the foregoing exercise to g-minor, f-minor, f#-minor, g#-minor, in order to give him a better understanding of the same chords and their connections in other keys. For this reason, we append the transpositions of the Bass in the above-named keys :

141. 

The pupil should analyze the following examples, write the number of the degrees under the Bass, and the thorough-bass notation with its chromatic signs above.

Examples.

142. 

143.

Exercise 143: Treble and bass staves in 3/2 time, key of D major. The treble staff features a series of chords and a melodic line with a slur. The bass staff provides a simple harmonic accompaniment.

144.

Exercise 144: Treble and bass staves in 3/4 time, key of D major. The treble staff features a series of chords and a melodic line with a slur. The bass staff provides a simple harmonic accompaniment.

145.

Exercise 145: Treble and bass staves in 3/4 time, key of B minor. The treble staff features a series of chords and a melodic line with a slur. The bass staff provides a simple harmonic accompaniment.

146.

Exercise 146: Treble and bass staves in 3/2 time, key of D major. The treble staff features a series of chords and a melodic line with a slur. The bass staff provides a simple harmonic accompaniment.

Exercise 147: Treble and bass staves in 3/2 time, key of D major. The treble staff features a series of chords and a melodic line with a slur. The bass staff provides a simple harmonic accompaniment.

Exercises.

147. *a.* *b.*

c. *d.*

e. *f.*

g. *h.*

i.

The industrious pupil will transpose the foregoing examples a half-step higher and lower, after he has worked them out in the original key.

CHAPTER IV.

Inversion of the Triads.

§ 21. By the inversion of a chord, we understand a transposition of the same wherein the Bass does not contain the fundamental tone, but some other interval of the chord. In triads it may be the third or the fifth. Therefore, every triad can be written in three positions. It remains still the same chord.

The three positions of the triad are named :

a. Fundamental Position

in which the fundamental tone of the chord is given to the Bass. The fundamental position of the triad has been only figured in exceptional cases, i. e. : at the beginning, and also, as we shall see farther on, occasionally throughout the exercise, with the figures $\frac{3}{\flat}$, $\frac{3}{\sharp}$, $\frac{3}{\flat}$, $\frac{3}{\sharp}$, etc.

b. The Chord of the Sixth

takes the third of the triad in the Bass. This inversion is generally figured with only 6 over the Bass, and, when necessary, the chromatic sign under the figure simply refers to the third of the Bass. The chord of the sixth on the tonic of C-major is, therefore, only figured with a 6 over the Bass ; but the chord on the third in a-minor, with $\frac{3}{\flat}$, thus :

148.

C: I

149.

a: III'

Triads of a-minor.

not thus:

152.

a: I I I II° II° II° III° III° III III°

IV IV IV V V V VI VI VI

less frequent.

VII° VII° VII° VII° VII° VII° VII°

By examining Ex. 151 and 152, the pupil will see that the doubling of the third in the given chords of the sixth of the independent triads, is avoided, because *this* interval is the most prominent in determining the major and minor triads, and should never be doubled if it is already present in the Bass. The doubling of the third in the chord of the sixth is not always forbidden, but is even *necessary* when several chords of the sixth are to be connected. When the chord of the sixth appears singly, it is advisable not to double the third, unless it is actually required. The leading of the voices in Ex. 153 is just as good as in Ex. 154.

153.

C: I - V

154.

C: I - V

§ 22. *We shall, in most cases, avoid doubling the third of the fundamental chord in the chord of the sixth of the dominant triad, because it is the leading tone.*

For this reason, the doubling of the fundamental tone of the triad on the seventh degree (whether major or minor) must be avoided. The third is the least essential interval in the just-mentioned chord, as also in the chord on the second degree in minor; it is, on this account, best suited for doubling:

155.

C: VII^o — — a: VII^o — —
a: II^o — —

Also the fifth of the diminished triad is adapted for doubling in the chord of the sixth:

156.

C: VII^o — — a: VII^o — —
a: II^o — —

The fifth of the augmented triad is *never* doubled, as it is the leading tone; but the third instead, or the fundamental, thus:

157.

a: III^r — — — —

In the chords of the sixth and fourth of the independent triads,

or: or: or: or in open position:

V I V I V I I V I I V I I V I

The division of the value is, in some cases, indicated by the position of the figures (the distance they are from each other), as exhibited in Ex. 166.

We now give various connections of the triads in their different inversions:

167. N. B.

G: I IV I V IV V I IV

III I II I VII° I II I V I

The N. B. in Ex. 167 emphasizes the following rule:

When there are between two chords two common tones in the three upper voices, either of which may be retained, it is preferable to hold that one which will permit the two other voices to move in contrary motion to the Bass.

In example 168, *a* is better than *b*, *c* better than *d*:

168.

a. better than: b.

c. better than: d.

G: V I G: V I C: III VI C: III VI

§ 24. The chord of the sixth-and-fourth is not used so often as the chord of the sixth.

When the chord of the sixth-and-fourth falls on the accented part of a measure (if the fundamental position has not preceded), it always gives the feeling of a Close:

169.

C: II I V I II I V I

This feeling will be less strong if this chord appears on the unaccented part of a measure, especially when the preceding chord contains the fifth or the fundamental of the triad. When one of these tones can be retained in the same voice, it is prepared, and the chord of the sixth-and-fourth becomes what is called a passing chord.

A prepared tone is connected with the same preceding tone

by a tie. It matters not whether the preparation appears on the accented or unaccented part of the measure, thus :

170.

C: I V I IV I IV V I V I VI IV

II III VI II VI II I - V I

The too frequent use of the chord of the sixth and fourth, even when prepared, is not good. Some examples now follow which the pupil must figure, as shown in Exs. 170 and 171.

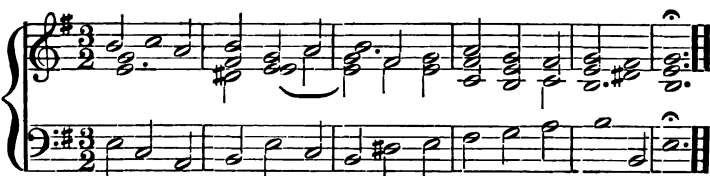
Examples.

171.


G: I V I - IV VII I II - V I VI IV II I V I

172.


173.



174.



175.

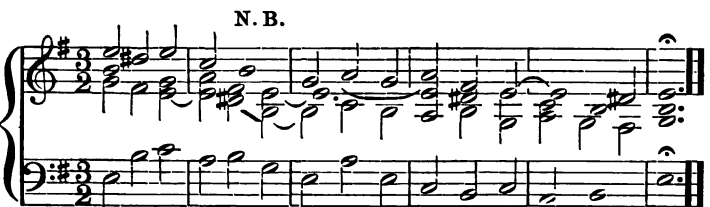


176.



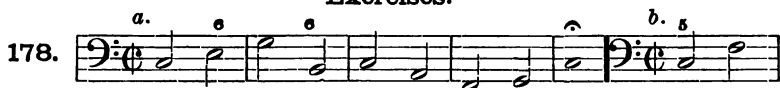
N. B.

177.

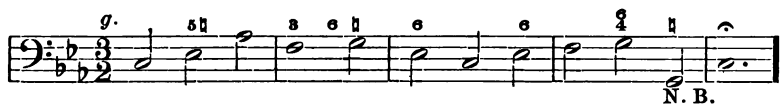


N. B. In a middle voice the leading-tone may be led downward by a skip.

Exercises.



N. B. The third must be doubled.



N. B. The \sharp standing for the third from the Bass is sufficient to indicate the Dominant Triad.



N. B. The dashes indicate that the figures and signs should be continued on the second note.



CHAPTER V.

Chords of the Seventh.

The Chord of the Dominant Seventh.

§ 25. When we add a third above the fifth or below the fundamental of a triad, a chord of four tones results; the distance from the fundamental to the highest tone being a seventh; it is, therefore, called *chord of the seventh* (a 7th chord).

We shall first thoroughly explain the most important of these chords, *the Chord of the Dominant Seventh*, also called *principal chord of the seventh*. The chord of the dominant seventh is formed by adding a minor third above the fifth of the dominant triad; the distance from the fundamental to the highest tone being a small seventh:



On examining this chord more minutely, we see that it contains the triads on the fifth and seventh degrees. As these two triads have the same formation in major and minor, the chord of the dominant seventh will also have exactly the same formation in both modes:

180.

| Triads. | | Chord of the seventh. | Triads. | | Chord of the seventh. |
|---------|------------------|-----------------------|---------|------------------|-----------------------|
| | | | | | |
| C: V | vii ^o | V ₇ | c: V | vii ^o | V ₇ |
| | | | | | |
| A: V | vii ^o | V ₇ | A: V | vii ^o | V ₇ |

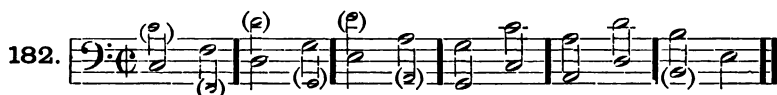
All chords of the seventh may be indicated either by giving all its intervals in thorough-bass notation $\frac{7}{b}$, or by the figures $\frac{7}{b}, \frac{7}{b}$, or only 7. The cipher 7 will suffice to designate the chord of the seventh in major; in minor, however, the third, which requires raising, must be indicated below the 7 by $\frac{7}{b}, \frac{7}{\sharp}, \frac{7}{x}$. Its ordinary designation by V_7 below the fundamental has already been shown in Exs. 179 and 180.

§ 26. *The Natural Resolution of the Chord of the Dominant Seventh in its Fundamental Position*

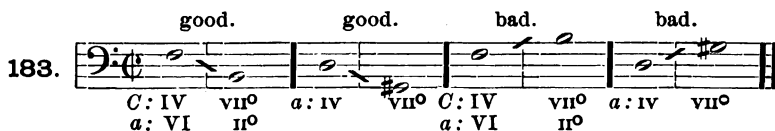
is effected by leading the Bass a skip of a fourth upward, or (which is the same) a fifth downward into the fundamental tone of the tonic triad:



All such skips of a fourth or a fifth in the Bass, no matter from what tone, are called *Cadences*.



The cadence-skip from the fourth to the seventh degree in major and minor, is not allowable, as all augmented skips upward in the connection of two chords are forbidden.



The seventh, the characteristic interval of the chord of the seventh, is led, in major, a half-step, and in minor, a whole-step downward into the third of the tonic triad. The third of the dominant chord of the seventh, being the leading-tone of the scale, is most frequently led a small half-step upward into the fundamental of the tonic triad. This must *always* take place when the aforesaid interval appears in the Soprano.

The fifth of the chord of the seventh is either led a tone upward or a tone downward, thus :

184.

C: V₇ I V₇ I V₇ I V₇ I V₇ I V₇ I

c: V₇ I V₇ I V₇ I V₇ I V₇ I V₇ I

This is the most natural and unforced resolution of the dominant chord of the seventh ; in this way the tonic triad is obtained, either with doubled fundamental and doubled third, or with *tripled* fundamental and third. In both cases the fifth of the tonic triad will be wanting ; nevertheless, the triad in this connection will be sufficiently complete. Only in special cases, when we wish to pay particular attention to harmonic and melodic development, do we deviate from this treatment of the two chords. We prefer to omit the fifth of the chord of the seventh, when necessary (as this is the unessential interval), and instead, double the fundamental, especially in the *chord of the dominant seventh*. The doubled fundamental occurring in one of the three upper voices is, in the resolution of the seventh, retained in the same voice, and gives the fifth of the tonic triad (thus complete), as shown in the following example :

185.

C: V₇ I V₇ I V₇ I

c: V₇ I V₇ I V₇ I

§ 27. As the leading-tone in a middle voice may be led downward (See N. B., Ex. 177), we are enabled to present both chords complete, i. e. : with all their intervals. The third of the chord of the seventh can then descend into the fifth of the triad, but only when the fundamental tone of the chord of the seventh in the Bass skips a fourth upward :

C: V₇ I V₇ I c: V₇ I V₇ I

The two voices mentioned above should not descend in parallel motion, for, if so,

Concealed Fifths

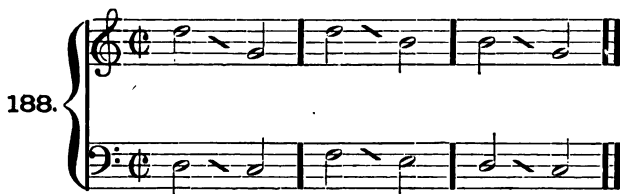
arise. Such concealed fifths are always forbidden, when both voices move by skips into a fifth, or twelfth. The following resolutions are therefore bad :

C: V₇ I V₇ I V I c: V

V₇ I V₇ I V₇ I V₇ I

Of all the faulty progressions exhibited in Ex. 187, those in which all voices move in parallel motion are the most incorrect: those in which the third of the chord of the seventh (the leading-tone) lies in the Soprano, are absolutely inadmissible.

Although other concealed fifths, in four-voiced chorus where only one voice skips, are not always avoidable, and, therefore, not prohibited; we would remark that such progressions, in which the upper voice skips, produce generally a poor effect. This is most apparent when the two outer voices are led in such a manner that the Soprano skips while the Bass moves a degree, thus forming a fifth (twelfth) with the Soprano, e. g. :



If, on the contrary, the upper voice moves by a degree, and one of the lower voices by a skip, the concealed fifth between all the voices is without hesitation permitted, i. e. : provided all voices do not move in the same direction. And even in this instance, the connection of the tonic triad with the dominant chord of the seventh is allowed, and the leading of the voices (as in Ex. 189) not to be wholly rejected. This is one of the few exceptions wherein the progression of all the voices in the same direction is permissible, thus :

189.

C: I V₇ I V₇ a: I V₇ I V₇

However, if the progression contains, besides the concealed

fifths, the succession of a perfect to a diminished fifth downward, it is always faulty :

190.

C: I V₇ a: I V₇

An objection must be made even to the progression in Ex. 191, because of their disagreeable effect :

191.

C: I V₇ I a: I V₇ I C: I V₇ a: I V₇

and prefer, in this instance, to present the chord of the seventh without the fifth, thereby obviating the ill-sounding progression : thus we are enabled to give the following triad with all its intervals as shown in Ex. 192 :

192.

C: I V₇ I I V₇ I I V₇ I

a: I V₇ I I V₇ I I V₇ I

We must not fail to remark here that such progressions of two voices, e. g. : from a perfect to a diminished fifth, are hence to be avoided when they produce a disagreeable effect : for this same reason the prohibition of certain concealed fifths and octaves is deduced. We do not altogether disapprove of the following progressions :

193.

C: I vii° I I V₇ I a: I V₇ I

but a succession of chords, as in the example given below, must be carefully avoided because of their harshness.

194.

It would lead us too far into abstruse technicalities to inquire here into the reasons which are adduced against the use of parallel octaves and fifths in the strict style, while allowing them in free composition, — the former, as doublings of other voices, and the latter, as expletive voices to the middle parts. At present, it will suffice the pupil to be assured that the leading of two voices in parallel octaves in pure four-voiced harmony produces an emptiness, and really changes a four-voiced into a three-voiced chorus, with one voice continually doubled. With regard to the forbidden parallel fifths, let it be stated that in the works of the great masters written in the strict style, these progressions occur quite as seldom as parallel octaves. We, in fact, derive all our rules, precepts, and principles pertaining to the strict style from the works of these masters.

If the fifth of the triad is to be led to the seventh, we write the numerals 5 7 over the Bass :

197.

C: V₇ I V₇ I V₇ I a: V₇ I V₇ I

The third of the triad may also be led to the seventh, — in most instances upward, however ; seldom downward, when it is figured by 3 7 over the Bass :

198.

C: V₇ I V₇ I a: V₇ I

We now give a few examples for the practical application of the chord of the dominant seventh in four-voiced writing. In the second measure of Ex. 199, the pupil will perceive that the chord of the seventh *in some cases* must necessarily be given without the fifth, to avoid the faulty progression of parallel fifths. This we are most always forced to do when the subdominant triad precedes the chord of the dominant seventh, thus :

199.

Examples.

N. B.

200.

N. B. (also bars 2 and 3)

201.

N. B.

202.

N. B. In measure one of Ex. 202, the fifth (g) of the triad on the seventh degree is given to the Alto, and thus may be led upward.

203.

204.

N. B. When the triad on the sixth degree precedes the dominant chord of the seventh, it must always be written — in both minor as well as major — with doubled third.

Exercises.

205.



After the pupil has worked out the foregoing exercises in the original keys, he may also transpose them to keys a half or a whole-tone higher or lower, occasionally changing the position of the first chord. All subsequent exercises in the book may be treated in a similar manner.

CHAPTER VI.

The Inversions of the Chord of the Dominant Seventh, and their Resolutions.

§ 29. According to the number of its tones, the chord of the dominant seventh may be used in four positions: in its fundamental position and three inversions. The following examples will make this obvious to the pupil:

Fundamental position. first, second, third inversion.

206.

C: V7 V7 V7 V7

Fundamental position. first, second, third inversion.

a: V7 V7 V7 V7

The first inversion is called the chord of the Sixth, Fifth, and Third, or more simply the chord of the Sixth and Fifth, and is designated by $\frac{6}{5}$ or only $\frac{6}{5}$ over the Bass. In this inversion, the third of the original seventh, the leading-tone of the scale,

lies in the Bass, and, according to the rule that the leading-tone in an outer voice must always be led a half-step upward, the chord of the Sixth-and-Fifth is regularly resolved into the tonic triad in its fundamental position (complete).

In this resolution of the inversion of the chord of the seventh, the fundamental tone of the original chord, lying in an upper voice, is retained in that voice. The other intervals progress (according to the previously promulgated rule for the resolution of the chord of the seventh in its fundamental position), to the other tones of the triad.

Natural Resolutions of the Chord of the Sixth, Fifth, and Third.

207.

C: V₇ I V₇ I V₇ I V₇ I V₇ I V₇ I V₇ I

a: V₇ I V₇ I V₇ I V₇ I V₇ I V₇ I V₇ I V₇ I

When the fundamental of the original chord lies in the Soprano, the chord of the sixth-and-fifth may also be resolved as shown is Ex. 208 :

208.

C: V₇ I a: V₇ I

§ 30. The second inversion of the chord of the seventh is called the chord of the Sixth, Fourth and Third, or more simply chord of the Fourth and Third. It is designated over the Bass by $\frac{6}{4}$, generally only by $\frac{4}{3}$ in major. In minor, however, the designation must always be given in full, because the chromatic sign necessary to raise the sixth of the Bass tone must be annexed. We, therefore, write $\frac{6\flat}{4}$ $\frac{6\sharp}{4}$ $\frac{6\flat}{4}$, according to the flat or sharp minor key in which the exercise happens to be.

As in the chord of the Sixth, Fourth, and Third, the fifth of the original chord lies in the Bass, and this interval may be led diatonically both upward or downward, the chord $\frac{6}{4}$ can be resolved either into the fundamental, or into the chord of the sixth (1st inversion) of the triad. In the latter resolution, the third of the triad must be doubled, as the original seventh is likewise led downward into the third of the triad.

Natural Resolutions of the Chord of the Sixth, Fourth, and Third.

209. Exceptionally.

C: V_7 I V_7 I V_7 I V_7 I V_7 I V_7 I V_7 I

Exceptionally.

A: V_7 I V_7 I V_7 I V_7 I V_7 I V_7 I V_7 I

§ 31. The third inversion of the chord of the seventh is called the chord of the Sixth, Fourth, and Second, or more simply the chord of the Second. The designation in major will be given by $\frac{6}{2}$, $\frac{4}{2}$, or only 2 over the Bass note; but in

minor, we must designate the chord in full by $\frac{9}{11} \frac{9}{11} \frac{9}{11} \frac{9}{11} \frac{9}{11} \frac{9}{11} \frac{9}{11} \frac{9}{11}$, as the fourth of the Bass-tone requires to be raised.

In this chord, the seventh lies in the Bass. As the seventh always descends, the natural resolution of the chord of the second is into the chord of the sixth of the tonic triad.

Natural Resolutions of the Chord of the Sixth, Fourth and Second.

210.

C: V₇ I V₇ I V₇ I V₇ I V₇ I V₇ I

A: V₇ I V₇ I V₇ I V₇ I V₇ I V₇ I

Sometimes we shall be obliged — in order to obtain an unforced leading of the voices — to use the following resolutions :

211.

C: V₇ I A: V₇ I C: V₇ I A: V₇ I

With regard to Ex. 211, (a), we remark again that the leading-tone in a middle voice may be led by a skip downward (see Ex. 177), and (b), that the concealed fifths are not at all to be censured, although the outer voice makes a skip.

Figures standing side by side over a Bass note, as was before stated, always signify two different chords, e. g. :

212.

C: V V₇ II V₇ IV V₇ IV V₇

II V₇ a: II^o V₇ IV V₇ II^o V₇ etc.

Examples.

213.

214.

215.

Measure 215 is in 4/4 time with a key signature of two flats (B-flat and E-flat). The treble staff contains a series of chords: a B-flat major triad, an E-flat major triad, a B-flat major triad, an E-flat major triad, and a B-flat major triad. The bass staff contains a series of notes: B-flat, E-flat, B-flat, E-flat, and B-flat.

Measure 216 is in 4/4 time with a key signature of two flats. The treble staff contains a series of chords: a B-flat major triad, an E-flat major triad, a B-flat major triad, an E-flat major triad, and a B-flat major triad. The bass staff contains a series of notes: B-flat, E-flat, B-flat, E-flat, and B-flat.

216.

Measure 217 is in 3/4 time with a key signature of two flats. The treble staff contains a series of chords: a B-flat major triad, an E-flat major triad, a B-flat major triad, an E-flat major triad, and a B-flat major triad. The bass staff contains a series of notes: B-flat, E-flat, B-flat, E-flat, and B-flat.

217.

Measure 218 is in 3/4 time with a key signature of two flats. The treble staff contains a series of chords: a B-flat major triad, an E-flat major triad, a B-flat major triad, an E-flat major triad, and a B-flat major triad. The bass staff contains a series of notes: B-flat, E-flat, B-flat, E-flat, and B-flat.

218.

Measure 219 is in 3/4 time with a key signature of two flats. The treble staff contains a series of chords: a B-flat major triad, an E-flat major triad, a B-flat major triad, an E-flat major triad, and a B-flat major triad. The bass staff contains a series of notes: B-flat, E-flat, B-flat, E-flat, and B-flat.

Exercises.

219.

219. 



In concluding this chapter, we remark that although the chord of the dominant seventh in its fundamental position is generally, yes, most frequently employed without the fifth, the inversions of the same must always appear complete, (i. e. : with all intervals) in working out the foregoing as well as all subsequent exercises.

CHAPTER VII.

The Secondary Chords of the Seventh in Major and their Natural Cadencing Resolution.

Formation of the Secondary Chords of the Seventh.

§ 32. On every degree of the scale a chord of the seventh may be formed ; these are called — in contradistinction to the *Dominant* or *Principal* chord of the *Seventh*—*Secondary Chords* of the *Seventh*. None of these, however, are formed in exactly the same manner as the dominant chord of the seventh : they differ from it, either according to the distance from the fundamental tone of the third or fifth or both these intervals, or according to the distance of the seventh itself from the fundamental tone. On the first and fourth degrees of the major scale, the following secondary chords of the seventh are found :



They are formed by adding a large third above a major triad, and materially differ from the dominant chords of the seventh in F major and B \flat major (f minor and b \flat minor), inasmuch as these have a small third added above a major triad :

221. 
 F: V $_7$ B: V $_7$
 f: V $_7$ b \flat : V $_7$

On the second, third, and sixth degrees of the major scale, we find secondary chords of the seventh formed of a minor triad and small seventh :

222. 
 C: II $_7$ III $_7$ VI $_7$

They differ from the dominant chords of the seventh in the keys of G, g, A, a, and D, d, inasmuch as they are formed upon a minor triad :

223. 
 G: V $_7$ A: V $_7$ D: V $_7$
 g: V $_7$ a: V $_7$ d: V $_7$

On the seventh degree of the major scale a secondary chord of the seventh is found formed of a diminished triad and a small seventh :

224. 
 C: vii $^{\circ}$ $_7$

This chord differs from the chords of the dominant seventh in the keys of E major and e minor, because of the different relation of the third and fifth to the fundamental tone :

225. 
 E: V C: vii $^{\circ}$ $_7$
 e: V

The pupil will perceive from examples 221, 223, and 225, that chords formed of a major triad with a small seventh added thereto, are always Dominant chords of the Seventh.

Natural Resolutions of the Secondary Chords of the Seventh.

§ 33. The secondary chords of the seventh of the major scale are *naturally* resolved into the triad a fourth above, or, which is precisely the same, a fifth below. These are called *cadencing resolutions*. The separate intervals of the secondary chords of the seventh progress to those of the triad (they resolve into) according to the rules heretofore given for the resolution of the dominant chord of the seventh. The secondary chords of the seventh in their fundamental position may also be employed without the fifth; consequently, the triad will appear complete, with all its intervals.

Whenever a secondary chord of the seventh is used without the fifth, the fundamental tone is generally doubled in an upper voice. Seeing that in the secondary chords of the seventh the third is not the leading-tone of the scale, and moreover, being a small third, never can assume the character of a leading-tone, this interval may also occasionally be doubled, e. g. :

226.

C: I II₇ V I₇ IV V₇ I

In the connection of chords of the seventh among themselves (explained in the next chapter), the seventh, and even the dominant seventh can sometimes be doubled, e. g. :

N. B.

227.

C: I II₇ V₇ I II I V I

In the special instance pointed out above at N. B., the seventh lying in the highest voice is regularly led downward; the other seventh lying in the inner voice is *irregularly* led upward. If in an irregular, "non-cadencing" resolution the seventh remains stationary, it loses the character of a seventh in the chord following it, and becomes another interval of that chord. It can then be led at pleasure, e. g. :

228.

C: I II₇ V₇ IV V I

Even when the seventh of a secondary chord of the seventh is leading-tone of the scale, it can under certain circumstances be doubled; but, notwithstanding this license, the seventh lying in the highest voice is to be led diatonically downward, as the following connections show :

229.

C: I V I₇ IV V V₇ I C: I V I₇ IV₇ V V₇ I

All these and other exceptions to the usual and prescribed leading of the seventh — likewise, other intervals of the chords of the seventh, will be shown and explained to the pupil farther on. They do not, however, alter the general rule that the seventh must always be led one degree downward, when there are no particular reasons for leading it otherwise. At present, we must adhere strictly to the general rule in working out the following examples: we shall, therefore, also lead the seventh of the secondary chords of the seventh downward, and double no other interval but the fundamental tone.

The secondary chords of the seventh will be designated, according as they contain a major, a minor, or a diminished triad, by Roman numerals and small Arabic 7 affixed thereto under the Bass, and large Arabic figures $^7 \frac{7}{3} \frac{7}{3} \frac{9}{8}$ over the Bass, as Ex. 230 shows. The figure 7 alone will be sufficient in most cases :


230. 

C: I₇ II₇ III₇ IV₇ VI₇ VII₇

We now proceed to show the “cadencing-resolutions” of the secondary chords of the seventh into their respective triads.

bad on account of the concealed
parallel fifths produced by the skip-
ping of two voices.

good. good. good.

231. 

C: I₇ IV I₇ IV I₇ IV I₇ IV I₇ IV I₇ IV I₇ IV

very bad.

With omitted fifth and doubled funda-
mental tone.

good. good. good.



I₇ IV I₇ IV I₇ IV

not good :

doubled
leading-tone. tolerably

good. good. not good.

232. 

II V II₇ V II₇ V II₇ V

233.

The first example shows four measures with the following labels: "bad.", "bad.", "not to be condemned.", and "good.". The chords are II_7 and V in each measure.

The second example shows four measures with the following labels: "good.", "good.", "good.", and "good.". The chords are III_7 and VI in each measure.

The third example shows four measures with the following labels: "good.", "not to be condemned.", "good.", and "not good.". The chords are III_7 and VI in each measure.

The fourth example shows three measures with the following labels: "bad.", "very bad.", and "not to be condemned.". The chords are III_7 and VI in each measure.

A cadencing-resolution of the chord of the seventh on the fourth degree into the triad on the seventh degree can be seldom used, as it produces a disagreeable effect. In this case,

the leading-tone of the triad on the seventh degree has always to be doubled. The chord will, therefore, sound very harsh ; but we must here remark that this fault is unavoidable :

234.

seldom. seldom. occasionally. tolerably good. bad.

C : IV₇ VII° IV₇ VII° IV₇ VII° IV₇ VII° IV₇ VII°

The fundamental tone of this chord of the seventh can never be led upward, as it can only produce the skip of an augmented fourth. Skips of all augmented intervals in an upward direction in the connection of two chords are forbidden. (See §26, Ex. 183.)

The old theorists forbade the skip of an augmented fourth as well as a diminished fifth in any direction in the connection of two chords. The distance between the intervals under consideration is three whole tones : this was called a Tritonus (Tritone), and was forbidden as being vocally impracticable. Nevertheless, this is only the case with regard to the skip of an augmented fourth upward, as the skip of an augmented fourth downward in the connection of two different chords is easy of execution by the voice, and can be clearly intonated, e. g. :

235.

F : III V₇

The diminished fifth, in the connection of two chords, is in every direction easy to intonate, e. g. :

236.

C: II V₇ I II V I

or in an upward direction :

237.

C: III V₇ III V₇ I V II III V₇ I

These intervals, occurring in the same chord, are easy to intonate, and, therefore, are not forbidden, e. g. :

238.

C: V₇ ————— F: V₇

We must from the outset carefully avoid the use of the augmented second-, fifth-, and sixth-skips (no matter in what direction) in the working out of our harmony exercises — even as constituent intervals of one and the same chord — for they are actually difficult for an ordinary singer to execute, and can only be clearly and distinctly intonated by the very best of

singers, and this only after reiterated practice. We shall, for this reason, not employ the following progression :

239.

C: IV₇ VII⁰ IV₇ VII⁰ IV₇ VII⁰ IV₇ VII⁰

The parallel motion of two voices in skips, as exhibited in the last two measures of Ex. 239, is of bad effect, and must always be avoided.

The cadencing-resolution of the chord of the seventh on the sixth degree into the triad on the second degree, is applicable and often used :

240.

C: VI₇ II VI₇ II VI₇ II VI₇ II VI₇ II

bad. not to be recommended, on
account of the unnecessary
movement of the outer voices.

VI₇ II VI₇ II VI₇ II

The chord of the seventh on the seventh degree in major permits of a two-fold resolution. We may resolve it either

into the triad on the third degree, or into the tonic triad. The former resolution is the more infrequent. (See Ex. 241) :

not to be
recom-
mended. bad. bad.

241. 

C: VII°₇ III VII°₇ III VII°₇ III VII°₇ III VII°₇ III VII°₇ III

The latter resolution is founded upon the natural progression of the leading-tone — here the fundamental tone of the chord — into the octave of the fundamental tone. The rules for the resolution of this chord of the seventh into the tonic triad in major are :

a. The fundamental tone is led a half-step upward :

242. 

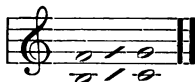
C: VII°₇ I

b. The seventh is led a whole-tone downward :

243. 

C: VII°₇ I

c. The fifth is always led downward, not :



as the progression of a diminished fifth upward into a perfect fifth, especially when in the outer voices, or between one outer voice and one inner voice, is not euphonious, and, therefore, to be avoided ; therefore, thus :

244. 

C: VII°₇ I

d. The third must be led diatonically upward, if it forms a fifth from the seventh, as the simultaneous progression of this interval with the seventh downward would produce perfect parallel fifths. This progression



is, therefore, faulty, in spite of the contrary motion of the Bass.

e. The resolution must take place in such a manner that the third of the tonic triad is doubled:



f. Nevertheless, if the third lies above the seventh, forming a fourth from this interval, we can lead it diatonically downward:



The Preparation of the Seventh in the Secondary Chords of the Seventh.

§ 34. All sevenths, in particular major sevenths, are dissonances, and must be prepared before their entrance; only the seventh of the dominant (principal) chord of the seventh, and the seventh of the chord of the seventh on the seventh degree can in general enter unprepared. The requirements for the preparation of the seventh are given below.

We call a tone prepared when, as interval of an antecedent chord, it remains stationary in the same voice, and is tied over to the next chord. (See § 23.) Therefore, the consonant and dissonant intervals of the triads, the augmented and diminished fifth, as also the seventh of the chords of the seventh, will serve as preparations for a dissonance.

Preparation through the Intervals of the Triads and Chords of the Seventh.

through the octave of the fundamental tone. | through the third. | through the perfect fifth.

247.

C: I II₇ V₇ I IV₇ II I VI₇ II

through the augmented fifth. | through the diminished fifth of the original chord.

a: III° I₇ C: VII° V₇

(The pupil will observe in Ex. 247, that also connections of the chords of the seventh among themselves, can occur; more of which in the next chapter.)

We observe in measures 2 and 4 of Ex. 247, and measures 1 and 3 of Ex. 248, that the preparation can take place on the unaccented, as well as on the accented part of the measure. In all cases, the preparative note must equal in value the note prepared. The preparative; however, may be of longer duration than the following note, thus:

248.

C: I IV₇ II IV I II₇ VII° II VII°

It is not always essential that the seventh be prepared. The

preparation is thus not necessary when the seventh follows the octave of the fundamental tone of the triad, or when it follows the fundamental tone in the Bass, e. g. :

249.

C: I I₇ IV I I₇ VI

The small seventh may also enter by a skip from a tone of the triad on which it is formed :

250.

C: II II₇ V VII° VII°₇ I V V₇ I

REMARK.—The pupil will observe in Ex. 249 and 250, that the inversions of the secondary chords of the seventh may also be employed; further explanations concerning them follow in the next chapter.

The seventh of the dominant chord of the seventh may enter unprepared, provided it always moves by a skip or a degree in contrary motion to the fundamental tone of the chord, thus :

251.

C: VI V₇ I II V₇ I IV V₇ I

The preparation of the following chord may also be given by the fundamental tone :

252.

C: I V₇ I V₇ I V₇ I V₇

The seventh of the chord of the seventh on the seventh degree may always enter unprepared. It is preferable, however, in this instance to let the fundamental tone progress in contrary motion to the seventh. We observe further, that it will be expedient to prepare the sevenths of the chords on the second and seventh degrees, when the previous chord admits of it.

253.

C: I vii^o₇ I I vii^o₇ I I vii^o₇ I

Examples.

254.

7 6 6-2 6 7 5 6 7

255.

256.

257.

258.

Exercises.

259.

The image displays six staves of musical notation in bass clef, each representing a different harmonic exercise or progression. The staves are labeled with letters c, d, e, f, g, and h. Each staff contains notes and figures (numbers) indicating specific harmonic structures.

- Staff c:** Shows a progression of chords with figures 3, 8, 7, 9, 6, 6, 7, and a final chord with a fermata.
- Staff d:** Shows a progression of chords with figures 7, 7, 7, 7, 9, 7, and a final chord with a fermata.
- Staff e:** Shows a progression of chords with figures 6, 6, 7, 9, 7, 6, 6, 87, and a final chord with a fermata.
- Staff f:** Shows a progression of chords with figures 6, 7, 6, 7, 2, 6, 7, and a final chord with a fermata.
- Staff g:** Shows a progression of chords with figures 9, 9, 7, 2, 6, 7, 6, 6, 7, 4, 7, and a final chord with a fermata.
- Staff h:** Shows a progression of chords with figures 8, 7, 2, 6, 7, 7, 9, 97, and a final chord with a fermata.

CHAPTER VIII.

The Cadencing-Connection of the Chords of the Sevenths in Major among themselves: Inversions of the Same and their Connections.

§ 35. The cadencing-connections of the secondary chords of the seventh with triads occur less frequently than the connections of the chords of the seventh among themselves. If, in a cadencing-resolution, one chord of the seventh in its fundamental position follows another chord of the seventh, also in its fundamental position, the third of the first chord will serve as preparation for the seventh of the following chord. As the

seventh must always be led downward, the second chord will appear without the fifth, either with doubled third, or better, with doubled fundamental tone — provided the first chord has been used with all its intervals :

also with doubled third. not good.

260.

C : I V III₇ VI₇ I V III₇ VI₇ IV II₇ V₇

In a sequence of several chords of the seventh in their fundamental position, the fifth will be omitted in each alternate chord.

N. B.

261.

C : I IV₇ VII⁰₇ III₇ VI₇ II₇ V₇ I₇ IV₇ VII⁰₇ I — V I

The doubling of the leading-tone at N. B. is, in this instance, not objectionable.

The chords given above may also be presented in such a manner that the fifth is left out of the first chord of the seventh ; the second chord will then appear complete, and the others will follow in corresponding order, e. g. :

262.

C : I IV₇ VII⁰₇ III₇ VI₇ II₇ V₇ I₇ IV VII⁰₇ I — V I

Inversions of the Secondary Chords of the Seventh.

§ 36. All inversions of the secondary chords of the seventh in the major scale are used in practice. They are formed in the same manner as those of the dominant chord of the seventh. The inversions must also as before be used with all the intervals of the chord. In the cadencing-resolution of these chords into triads or chords of the seventh — whether in the fundamental position or in the inversions — the following chord will likewise be presented with all its intervals. When a chord of the seventh in its fundamental position resolves (in a cadence) into the inversion of another chord, the latter will always appear with all its intervals, e. g. :

263.

C: I₇ IV II₇ V III₇ VI I₇ IV₇ II₇ V₇ III₇ VI₇

We subjoin a few cadencing-resolutions of the inversions of the chords of the secondary sevenths into triads and chords of the seventh.

Cadencing-resolution into the triad.

264.

C 7 IV I₇ IV I₇ IV I₇ IV I₇ IV I₇

These resolutions will be always perfectly satisfactory, as each part progresses according to the most rigid rules, thus strictly satisfying the regular movement of the parts — ignoring exceptional skips, etc.

Cadencing-resolution into the chord of the seventh.

Two musical examples illustrating cadencing-resolution into the chord of the seventh. The first example shows a sequence of chords: II_7 , V_7 , II_7 , V_7 , II_7 , V_7 , $V_7 I_7$, $V_7 I_7$. The second example shows: V_7 , I_7 , $VII^0_7 III_7$, $VII^0_7 III_7$, $VII^0_7 III_7$, etc.

Examples.

265.

$C:I$ II_7 V_7 I IV — $VII^0_7 III_7$ VI_7 II V_7 I II_7 V V_7 I

N. B.

266.

N. B. The secondary chord of the seventh may here be used without the fifth, with doubled third. The third of the sec-

ondary chords of the seventh, in their fundamental position, is best adapted for doubling, thus :

267.

268.

Exercises.

269.

b.

c.

d.

The image displays six staves of musical notation in bass clef. Each staff contains a sequence of notes and rests, with various chord symbols (e.g., 3, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100) written above the notes. The notation includes notes, rests, and chord symbols (e.g., 3, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100). The notation includes notes, rests, and chord symbols (e.g., 3, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100).

CHAPTER IX.

The Secondary Chords of the Seventh in Minor and their Inversions.

Formation of the Secondary Chords of the Seventh in Minor.

§ 37. In the example given below, we meet with three new formations of the secondary chords of the seventh. On the

first degree, we find a minor triad with large seventh; on the third degree, an augmented triad with large seventh; and on the seventh degree, a diminished triad with diminished seventh:



Those on the second, fourth, and sixth degrees of the minor scale resemble those on the seventh, second, and fourth degrees in major:



In practice, those on the second and seventh degrees are generally employed. At present, we shall not make use of the chord of the seventh on the first degree, as it will not admit of a regular resolution of the seventh downward, owing to the augmented second step.*

The Cadencing-resolutions of the Secondary Chords of the Seventh.

§ 38. The chord of the seventh on the second degree in minor, very frequently employed, is, in its construction, analogous to the chord of the seventh on the seventh degree in major. We must, however, take into consideration that the chord in minor has not the leading-tone as fundamental tone; it, therefore, only admits of a regular, cadencing-resolution. In resolving this chord, we must always lead the fifth downward, as the step of an augmented second upward is not permitted (as asserted before):

* We shall advert to this chord further on.

272. Into the dominant triad.

a: $\text{II}^\circ_7 \text{ V}$ $\text{II}^\circ_7 \text{ V}$ $\text{II}^\circ_7 \text{ V}$ $\text{II}^\circ_7 \text{ V}$ $\text{II}^\circ_7 \text{ V}$ $\text{II}^\circ_7 \text{ V}$

Into the chord of the dominant seventh. Open position.

$\text{II}^\circ_7 \text{ V}$ $\text{II}^\circ_7 \text{ V}_7$ $\text{II}^\circ_7 \text{ V}_7$ $\text{II}^\circ_7 \text{ V}_7$ $\text{II}^\circ_7 \text{ V}_7$ $\text{II}^\circ_7 \text{ V}_7$

The chord of the seventh on the third degree likewise admits of a cadencing-resolution. Farther on, we shall find this chord to be identical with the chord of the seventh with altered fifth on the first degree in major; it may also be employed in major, with this exception, however, that the fifth must be led upward, for, besides being the leading-tone, it cannot make the forbidden step of an augmented second downward:

273. Into the triad on the sixth degree. Into the chord of the seventh.

a: $\text{III}^\circ_7 \text{ VI}$ $\text{III}^\circ_7 \text{ VI}$ $\text{III}^\circ_7 \text{ VI}$ $\text{III}^\circ_7 \text{ VI}_7$ $\text{III}^\circ_7 \text{ VI}_7$ $\text{III}^\circ_7 \text{ VI}_7$

A cadencing-resolution of the chord of the seventh on the fourth degree into the triad on the seventh degree, is not possible, without producing a faulty progression of the voices, and is, therefore, not used in pure writing. A cadencing-

connection of the chords of the seventh on these degrees can be effected, if the Bass be led downward; in this case, however, care should be taken to avoid the doubling of the leading-tone of the chord of the seventh on the seventh degree, thus :

274.

a: IV_7 VII^0_7 IV_7 VII^0_7 IV_7 VII^0_7 IV_7 VII^0_7 IV_7 VII^0_7

The chord of the seventh on the sixth degree admits of a cadencing-connection with either the triad or the chord of the seventh on the second degree. Like in the connection of the same chords on the fourth and seventh degrees in major, the Bass can only be led downward. The connection, however, is better in minor than in major, as the fundamental tone of the chord on the second degree (B, in a-minor) is not the leading-tone.

275.

Into the triad.

a: VI_7 II^0 VI_7 II^0 VI_7 II^0 VI_7 II^0

Into the chord of the seventh on the second degree.

VI_7 II^0_7 VI_7 II^0_7 VI_7 II^0_7 VI_7 II^0_7

The Chord of the Diminished Seventh.

§ 39. The chord of the seventh on the seventh degree in minor is formed of a diminished triad and diminished seventh, and has, therefore, been specially denominated "Chord of the Diminished Seventh." A cadencing-resolution of this chord is impossible, as it cannot be effected without an error in pure writing, and, besides, if made, would sound unnatural and harsh; it is, therefore, naturally resolved into the tonic triad, as Exs. 276 and 277 prove:

276. 

The diminished seventh, being the mildest dissonance, requires no preparation.

For the natural resolution into the tonic triad, exactly the same rules will be applicable as those governing the resolution of the chord of the seventh on the seventh degree in major. The resolution of the chord of the diminished seventh into the chord of the seventh on the first degree in minor *never* occurs:

277. 



N. B. The progression of the Soprano and Tenor from a diminished fifth to a perfect fifth, downward, is here quite toler-

able, as the contrary motion of the leading-tone in the Bass covers the parallel fifths and entirely removes the unpleasant effect. Such progressions are permissible, when the leading-tone in an outer voice progresses upward in contrary motion to the parallel fifths, e. g. :

278. *Not to be condemned.*

a: VII°₇ I

The progression of a perfect fifth upward to a diminished fifth, no matter if the Bass moves in contrary motion, is not of really good effect :

279. *not so good. good.*

c: I VII°₇ VII°₇ I

The progression of a perfect fifth downward to an augmented fifth is always good, especially when the Bass moves in contrary motion :

280. *good. good.*

a: IV III° V₇ I II°₇ III° V₇

not as good, but not to be condemned.

I IV III° V₇ I

The Inversions of the Secondary Chords of the Seventh, their Connections with Triads of the Minor Key, as also the Connections among themselves.

§ 40. As the secondary chords of the seventh in minor in their fundamental position, are even less frequently used than those in major, the inversions of the same will even yet be more seldom used. Of the chord-formations in Ex. 281 :

281.

a. III_7 b. III_7 c. III_7

only the last one at c, designated by $\frac{5}{3}$, can be used for practical purposes. We shall, therefore, not consider it as the inversion of the chord of the seventh on the third degree in minor, but treat it as a chord of the major scale, with altered passing note, e. g. :

282.

N. B.

C: I I₇ VI VI₇ IV II₇ V V₇ I

N. B. In this position, the fundamental tone and the seventh may progress in parallel motion. The first inversion ($\frac{5}{3}$) of the seventh on the third degree in minor, occasionally appears in its cadencing-resolution into the triad on the sixth degree. (See Ex. 290.)

The chord of the seventh on the second degree in minor—which in its fundamental position is so often used—may also be employed in its inversions. Like the resolution of the chord in its fundamental position, the inversions also admit of

a cadencing-resolution into the dominant triad or the chord of the dominant seventh, thus :

283.

Into the triad. and chord of the dominant seventh.

$a: \text{II}^{\circ}_7 \text{ V} \quad \text{II}^{\circ}_7 \text{ V} \quad \text{II}^{\circ}_7 \text{ V} \quad \text{II}^{\circ}_7 \text{ V}_7 \quad \text{II}^{\circ}_7 \text{ V}_7 \quad \text{II}^{\circ}_7 \text{ V}_7$

The cadencing-resolutions of the inversions of the chord of the seventh on the fourth degree in minor, occur less frequently. When led to the triad on the seventh degree, they do not produce a very agreeable effect ; on the contrary, a cadencing-resolution into the chord of the diminished seventh is quite applicable :

284.

$a: \text{IV}_7 \text{ VII}_7 \quad \text{IV}_7 \text{ VII}^{\circ}_7 \quad \text{IV}_7 \text{ VII}^{\circ}_7$

Also the cadencing-resolutions of the inversions of this chord into the chord of the seventh on the second degree, produce a better effect than their various resolutions into the triad :

285.

$a: \text{VI}_7 \text{ II}^{\circ}_7 \quad \text{VI}_7 \text{ II}^{\circ}_7 \quad \text{VI}_7 \text{ II}^{\circ}_7$

The cadencing-resolutions of the inversions of this chord into the chord of the sixth of the triad on the second degree, is also good, e. g. :

286.

good. good.

a: VI VI₇ II⁰ V I a: IV VI₇

not so good.

II⁰ V₇ I a: IV VI₇ II⁰ V₇ I

The inversions of the chord of the diminished seventh must, in their natural resolution, only be resolved into the triad on the first degree. They contain the interval of an augmented second: owing to the similarity of sound of this interval with the small third, the inversions of this chord will not differ from other chords of the diminished seventh in their fundamental position and their inversions.

287.

a: VII⁰₇ c: VII⁰₇ f#: VII⁰₇ eb: VII⁰₇

a: VII⁰₇ c: VII⁰₇ f#: VII⁰₇ eb: VII⁰₇ etc.

Ex. 288 exhibits the natural resolutions of the inversions of the chord of the diminished seventh into the triad on the first degree in minor.

N. B.

288.

a: VII^o₇ I VII^o₇ I VII^o₇ I VII^o₇ I VII^o₇ I VII^o₇ I

N. B. See Ex. 277, together with the remark upon it. The leading of the fifth D upward to E, in the last measure of Ex. 288, is in this case not faulty, as the fifth and the fundamental tone of the original chord progress in parallel fourths.

It is hardly necessary to mention here, that, in the connection of two or more chords of the seventh in minor in their fundamental position, the fifth must be omitted from each alternate chord, as is the case in the following connections in major :

289.

a: IV₇ VII^o₇ I VI₇ II^o₇ V₇ VI₇ II^o₇ V₇ etc.

In the cadencing-connection of a chord of the seventh in its fundamental position with the inversion of another chord of the seventh — as well as the connection of two inversions — both chords will (in minor as in major) be given with all their intervals, as already exhibited in examples 283, 284, and 285.

Examples.

290.

a: I VII^o₇ V₇ I V III^o₇ VI IV IV₇ VII^o₇ I II^o₇ V I

291.

292.

293.

Exercises.

294. a.

b.



CHAPTER X.

Other Non-cadencing Connections of the Chords of the Seventh within the Same Key and with Chords of Other Keys.

§ 41. When the intervals of a chord of the seventh progress in such a manner that they do not resolve into the chord on a bass a fourth above, such non-cadencing connections of a chord of the seventh with another chord are designated

Deceptive Cadences.

Deceptive cadences may be formed in manifold ways. Two kinds are distinguished, viz. :

1. The connection of a chord of the seventh with another chord belonging to the same key, whose fundamental tone is not situated upon the cadencing tone-degree.

2. The connection with another chord of a foreign key, not based upon the cadencing tone-degree.

In the last-mentioned case arises a

Modulation.

Hereby is understood a temporary digression from the predominating key, wherein one or more foreign keys are touched upon, after which the piece again returns to and proceeds in the original key, when the search after a foreign key is abandoned, in order that it (the piece) may remain and close in its *original* key. Ex. 295 shows us a passing digressive modulation in an exercise beginning in A major. The progression of chords through various keys is indicated under the Bass. We set forth in this connection this principle: chords belonging to different keys, which, of course, may be variously designated, (under the Bass) will be considered as belonging to a particular key—and accordingly so designated—so long as they are capable of being included in it:

295.

A: I V₇ C: V₇ b: I C: V₇ A: V V₇ I V₇ I f#: V₇

b: V V₇ I A: II₇ V V₇ I II I V₇ I

Ex. 296 shows us, on the contrary, a modulation from A major to B major, with the purpose of seeking out and establishing the foreign key :

296.

A: I V₇ C: V₇ b: I C: V₇ A: V₇ E: III VI₇ B: V₇
(or) B: VI II₇ V₇

I₇ IV VII^o₇ I c#: V₇ B: II II₇ V₇ III V I

§ 42. All kinds of deceptive cadences may be formed :

- a. by the regular progression of the seventh diatonically downward ;
- b. by a stationary or enharmonic change of the seventh into the augmented sixth ;
- c. by the diatonic upward progression of the seventh ;
- d. by the upward or downward skip of the seventh.

In considering the various kinds of deceptive cadences, we begin with the dominant or principal chord of the seventh — the one most frequently used — and exhibit a few of these connections (cadences) in the same key, and modulating by means of chords of other keys.

Deceptive Cadences of the Chord of the Dominant Seventh with Regular Diatonic Progression Downward.

297.

C: V₇ VI V₇ VI V₇ VI c: V₇ VI V₇ VI

and others.

$V_7 III^*$ $V_7 III^*$ C: $V_7 III$ $V_7 VI_7$ $V_7 VI_7$

The pupil will observe in the first five measures of Ex. 297, that in the connection of the chord of the dominant seventh with the triad on the sixth degree, the chord of the seventh must always have all its four notes. The fifth of the chord of the seventh can only be led downward. In this connection in minor, the triad on the sixth degree will *always* appear with doubled third, while in major the downward diatonic progression of the leading-tone is also allowed, even in the Soprano, (see Ex. 297, measure 1,) especially when the leading-tone progresses to the octave of the fundamental of the triad.

N. B.

298.

C: $V_7 a: V$ C: $V_7 a: V_7 C: V_7 F: V_7 C: V_7 d: V_7 C: V_7 Ab: IC: V_7 ab: VII_7$

C: $V_7 d: II_7 C: V_7 f: VII_7 C: V_7 d: VII_7 C: V_7 g: II_7 C: V_7 g: II_7 C: V_7 Ab: V_7$

C: $V_7 Eb: I$ C: $V_7 Eb: I$ C: $V_7 d: II_7 C: V_7 bb: II_7 C: V_7 Db: V_7$

The chord-connection shown in measure 3, Ex. 298, is really a cadencing-connection, but, owing to the modulation, is really a deceptive cadence.

Connection of the Chord of the Dominant Seventh with Stationary or Enharmonically-changed Seventh.

non-modulatory.

299.

C: V_7 II V_7 IV V_7 II $_7$ V_7 VII $^\circ_7$ V_7 II $_7$ etc.

modulating.

C: V_7 a: VII $^\circ_7$ C: V_7 c: VII $^\circ_7$ C: V c: IV C: V_7 c: II $^\circ_7$

or enharmonic.

C: V_7 Gb: V_7 C: V_7 f#: V_7 C: V_7 f: II $^\circ_7$ C: V_7 F: II $_7$

C: V_7 Eb: V_7 C: V_7 d: III $^\circ_7$ C: V_7 Bb: V_7 C: V_7 Eb: II $_7$ C: V_7 eb: II $^\circ_7$ etc.


Connections of the Chord of the Dominant Seventh with other Chords by means of the Upward Progression of the Seventh

will *always* be modulatory, as shown in Ex. 300 :


300. 

$C:V_7 G:VII^o C:V_7 G:V_7 C:V_7 b:I C:V_7 g:VII^o C:V_7 E:V_7 C:V_7 D:I$

§ 43. The seventh must always be led diatonically upward, when the fundamental tone of the chord of the seventh is led to the tone to which the seventh itself naturally resolves, as the concealed parallel octaves—which would arise if the fundamental tone and the seventh progressed in parallel motion to the third or fifth of the following chord—must be considered equally as faulty as *open* parallel octaves. This is applicable not only for the outer voices, but for all voices. The before-mentioned progression is only then allowed, when the concealed octaves lead to the fundamental tone of the chord, for then no unpleasant effect is produced :

301. 

$C:V_7 I V_7 I V_7 I V_7 I V_7 VI$



$C: II V V_7 a: V_7 f: V_7 d: V_7$

In Progressions of the Chord of the Seventh, where the Fundamental Tone is led to the Tone to which the Seventh would Naturally Resolve,

the seventh itself must be forced upward (not descend), as shown in Ex. 302 :

302.

non-modulatory. modulatory.

C: V₇ I V₇ I V₇ d: vii^o C: V₇ D: V₇

C: V₇ F: V₇ C: V₇ d: vii^o₇ C: V₇ f: vii^o₇ C: V₇ Ab: V₇

C: V₇ b: V₇ C: V₇ bb: ii^o₇ C: V₇ c: I C: V₇ bb: ii^o etc.

Also the upward progression of another interval of the chord of the seventh to the tone of the natural resolution of the seventh itself is only to be recommended when the seventh lies

in an inner voice, away from the fundamental tone: in this position the harshness of the doubled third is avoided.

303. good. good. bad. very bad.

C: I V₇ I f: I V₇ I I V₇ I I V₇ I

§ 44. Permitting the seventh to skip is seldom used in pure writing.

The exercises in this chapter will offer the pupil no occasion for making use of such exceptional progressions. A few of these latter will be shown in Ex. 304:

304.


D: I V₇G:V₇ I D: I V₇e: vii^o₇ I D: I V₇Bb: V₇

I D: I V₇g: vii^o₇ I D: I V₇b: V₇ I D: V₇g: I

D: V₇ IV D: V₇ C: I D: V₇ b: vii^o₇ D: V₇ IV etc.

We have already made the pupil acquainted with a few free

progressions of the fundamental tone, third and fifth of the chord of the seventh. (See Exs. 293, 209, 211, etc.) We here add a few others of less frequent occurrence :

305. 

C: V₇ I V₇ I V₇ I

N. B. The skip of two voices, in contrary motion, from a twelfth to a perfect fifth, is always allowed,* as it gives more fulness and euphony to the closing chord.

Examples.

306. 

G: I V I V₇ B^b: V₇ a: i B^b: V₇ G: V₇ e: V₇



I d: II⁰₇ V₇ g: II⁰₇ V₇ G: I d: II⁰₇ V₇ b: VII⁰₇ I

* A few theorists forbid this progression of two voices; Cherubini (see *Traité du Contrepoint*) allows it and considers it good. In reality, the twelfth is quite another interval than the fifth; it is, therefore, nonsense to speak of parallel fifths in contrary motion. In the works of the great masters (written in the strict style), we frequently meet with the leading of the Tenor and Bass, N. B. 2, Ex. 305: it gives more fulness and euphony to the closing chord.

$A: V_7$ II V_7 I $D: V_7$ I V_7 $e: VII^{\circ}_7$ I $a: V_7$

I $G: VI$ II — I IV I — II V I

307.

$D: I$ VII^o I II₇ V I $A: V_7$ IV I

$E: V_7$ $c\sharp: V_7$ $f\sharp: V$ V_7 I $e: II^{\circ}_7$ V_7 I $b: I$ II^o₇

V V_7 I $D: II_7$ V V_7 I

Exercises.

308. *a.*
 C: I V₇ VI II V₇ a: V₇ VI C: II₇ V V₇ IV V₇

b.
 I II₇ — V₇ III V₇ I C: I V₇ II V₇ a: V₇ I

c.
 C: II₇ V I C: I V₇ I c: II⁰₇ V VI IV II⁰₇ V

d.
 I V I d: VII⁰₇ I — C: V₇ III V₇ I Ab: I IV V₇

e.
 f: V₇ bb: V V₇ I V₇ I VII⁰ V₇ I VII⁰ Ab: II V V₇ I

f.
 D: I V₇ b: V₇ I C: V₇ b: I C: V₇ A: V₇ VI D: II V₇ I

g.
 d: I V₇ f: V₇ e: I f: V₇ d: V₇ VI IV₇ F: V V₇ d: V₇ I

h.
 IV V I g: I c: VII⁰₇ I Ab: V₇ g: I Ab: V₇ g: IV₇ VII⁰₇ I

i.
 d: V₇ Ab: IV I — V₇ g: I IV₇ — Bb: V₇ g: III⁰₇ — VI II⁰₇ — V I

a: I₇ d: IV a: I₇ g#: V₇ a: I₇ C: V a: I₇ g: II°₇

The seventh progresses a whole tone downward.

a: I₇ b: V₇ a: I₇ e: VII°₇ a: I₇ g: VII°₇ a: I₇ c#: II°₇

Progressions of the Seventh Ascending Diatonically.

If we wish to lead the seventh—which is the leading-tone in this chord—a half-step upward, it is possible to effect a cadencing-resolution into the triad or chord of the seventh on the fourth degree, thus :

311.

a: V I₇ IV V I₇ IV₇ I₇ IV₇

Other non-cadencing progressions of this chord will conduce to a better result :

312.

non-modulatory.

a: I₇ I a: I₇ VI a: I₇ II°₇ a: I₇ II°₇

modulatory.

$a: I_7 \quad Bb: V_7 \quad a: I \quad e: VII^\circ_7 \quad a: I_7 \quad e: V_7 \quad a: I_7 \quad G: V_7$

$a: I_7 \quad d: V_7 \quad a: I_7 \quad e: II^\circ_7 \quad a: I_7 \quad g: II^\circ \quad a: I_7 \quad d: V$ and others.

Progressions of this chord with stationary seventh, are shown in Ex. 313:

313.

$a: I_7 \quad B: VII^\circ_7 \quad a: I_7 \quad VII^\circ \quad a: I_7 \quad V_7 \quad a: I_7 \quad V_7$

As this chord—which is so difficult to introduce, and so awkward to treat properly—is capable of such a number of cadencing-connections, the secondary chords of the seventh on other tone-degrees both in major and minor admit of these connections in a far greater number and variety. Above all, the chord of the diminished seventh (which otherwise does not allow of a cadencing-resolution), is organically (constructively) adapted for connections in the same key. Furthermore, the

variety of its enharmonic changes (see Ex. 287) offers considerable scope for modulatory purposes :

Examples.

314.

a: I VII⁰₇ IV VII⁰₇ f: I c: VII⁰₇ IV VII⁰₇ f: V

b \flat : VII⁰₇ B \flat : I f: VII⁰₇ a: VI VII⁰₇ — d: V e: VII⁰₇ A: I

315.

c: I V₇ I A \flat : V₇ I f: V₇ VI b \flat : V₇ I

c: IV V₇ VI IV V V₇ II⁰₇ III⁺ V₇ I

316. N. B. N. B.

G: I V₇ IV e: V₇ a: vii^o₇ I e: V a: vii^o₇ d: V

N. B.

g: vii^o₇ G: I II I IV I II₇ - V₇ I

The progressions marked N. B. exhibit the entrance of the fundamental tone and seventh in parallel motion.

This may occur if one voice makes the step of a half-tone to the seventh, e. g.:

317.

C: III F: V₇ VI c: vii^o₇ C: I B^b: V₇ I f: vii^o₇

F: I II c: vii^o₇ I C: V₇ - I

As all sevenths placed above a diminished triad may enter free, the entrance of the seventh and fundamental tone may

take place also in parallel motion, by the step of a whole tone, e. g. :

318.

$F : I \quad V \quad VII^{\circ}_7 \quad d : V \quad I \quad F : II \quad V_7 \quad I$

Exercises.

319.

$C : I \quad IV \quad I \quad G : V_7 \quad a : VII^{\circ}_7 \quad I \quad V_7 \quad I \quad d : VII^{\circ}_7 \quad I \quad C : V_7 \quad I$

$g : VII^{\circ}_7 \quad C : I \quad V_7 \quad I \quad C : I \quad V_7 \quad a : V \quad I \quad g : VII^{\circ}_7 \quad C : V \quad V_7$

$D : V_7 \quad I \quad e : VII^{\circ}_7 \quad I \quad a : VII^{\circ}_7 \quad I \quad VII \quad I \quad e : VII^{\circ}_7 \quad C : I \quad - \quad V_7 \quad I$

$a : I \quad IV \quad VII^{\circ}_7 \quad I \quad II^{\circ}_7 \quad V_7 \quad I \quad II^{\circ}_7 \quad e : VII^{\circ}_7 \quad IV \quad a : II^{\circ}_7 \quad VII^{\circ}_7 \quad C : V_7 \quad I$

$II^{\circ}_7 \quad a : VII^{\circ}_7 \quad V_7 \quad I \quad G : V_7 \quad e : VII^{\circ}_7 \quad I \quad a : VII^{\circ}_7 \quad I \quad - \quad II^{\circ}_7 \quad V_7 \quad I$

d.

a: I VII°₇ V₇ I IV₇ VII°₇ VI C: VI₇ II₇ IV VII⁷ a: VII°₇

e.

I II°₇ e: V₇ a: I V V₇ I E: I VII° a: VII°₇ A: I

b.

b: VII°₇ IV B: V₇ I E: V₇ a: VII°₇ A: I E: V₇ c#: V₇ I IV₇ B: V₇

f.

E: V V₇ I G: I V₇ IV V₇ e: V₇ I C: V₇

I V₇ Eb: V₇ d: I Eb: V₇ c: V₇ b: I a: VII°₇

V₇ I VII° I G: I V₇ I



PART SECOND.

CHAPTER XII.

Altered Chords.

The Triad with Altered Fifth.

§ 46. A chord is called altered when one of its intervals is chromatically raised. Two kinds of these chords are distinguished, viz. : altered triads, and altered seventh-chords. Not all triads and seventh-chords, however, are adapted for such interval-alterations ; and not all of the chords thus alterable exhibit a construction different from a fundamental harmony. We find altered major triads and seventh-chords as fundamental chords on the third degree of every minor key. The chords exhibited in Ex. 320 will, therefore, be altered triads in C major :

320.

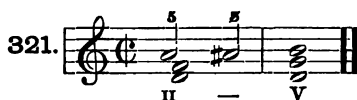
C: I IV V

although they appear in (and apparently belong to) the keys of a-minor, d-minor, and e-minor, as augmented triads on the third degree. But here we find them as augmented triads *only*, while, on the other hand, we may use one and the same chord in the same key—either as fundamental chord with perfect (natural) fifth, or as derived chord—without leaving the key, or effecting a modulation.*

* These chords of the seventh, formed of major triad and large seventh with chromatically raised fifth, might equally as well be considered as fundamental harmonies, as altered chords in different keys.

For the application of all altered chords, we adopt the following rule: *the altered (chromatically raised a large half-step) tone must always be considered as the sharpest leading-tone, and, therefore, ALWAYS led a small half-step upward.*

For this reason, we can only have one minor triad, besides the three altered primary triads already presented as altered triads in major; this is the triad on the second degree:



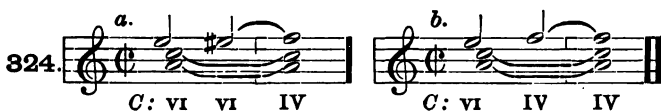
The minor triad on the sixth degree will not permit the alteration of the fifth in C major, as the altered tone could not be led upward to f# without effecting a modulation into G major; the triad would then not be the chord on the sixth degree in C major, but the altered triad on the second degree in G major:



In minor, the triads on the fourth and sixth degrees can be formed with altered fifth:



To change the altered tone enharmonically, would, in reality, be to convert the large half-tone (a comma) into a small half-tone. We could only conceive of the progression at *a* as it is shown at *b*:



that, when the altered tone enters free, by a skip, the augmented second-skip—as all other skips of augmented intervals—must be carefully avoided.

If the altered tone, in its original formation, is sustained, it is converted into the leading-tone of another key, and thereby ceases to be an altered tone. It will then be a component interval of a fundamental harmony :

327.

C: I — a: V₇ I

Examples.

328.

F: I — VI Bb: V₇ I — II — F: V₇ VI —

C: VII^o I F: I IV₇ V — I

329.

D: I — IV — II — V₇ b: VII^o₇ I G: V₇

I — VI I D: III V I e: VII^o₇ I — D: I V₇ I

The pupil must observe in these examples that the altered tone can never be placed in two voices at the same time, and also, that it can never be written in one voice, while the other voice sustains the natural tone.

When the natural fifth precedes the altered fifth, it is designated by the figure 5, followed by 5\$, 5, 5x, according to the alteration required by the following chord. The first figure 5, placed over the bass-note, refers, at the same time, to the position of the Soprano. (See Ex. 320.) In the course of the exercise, the 5 has no further reference to the position of the Soprano.

Exercises.

330.

C: I — IV — II — V₇ a: VII^o₇ I G: V₇ C: V — I

b.

F: I — VI — C: VII^o I — F: I I₇ Bb: V₇ I —

VI VI₇ f: II^o₇ F: V₇ III V I G: I VI D: VII^o I —

G: I VI₇ II₇ V₇ I — IV₇ D: V₇ G: V V₇ I IV II V I

N. B.

$G: I \quad V - I - D: VII^{\circ}_7 V_7 \quad I - IV \quad II_7 \quad V \quad I \quad e: VII^{\circ}_7 V_7 \quad e: I \quad G: VI_7$
 $IV - V_7 \quad I \quad II \quad D: V_7 \quad I \quad e: VII^{\circ}_7 \quad G: VI \quad VI_7 \quad II_7 \quad V \quad V_7 \quad I$
 $e: I$

N. B. The seventh G must here be led upward to A, because the Bass skips a third to F#, the resolution-tone of the seventh.

$d: I - V \quad VI - g: V_7 \quad I - d: V_7 \quad I \quad V_7 \quad I$
 $g: VII^{\circ}_7 \quad I \quad d: IV_7 \quad II_7 \quad F: I - d: VI_7 \quad IV \quad I \quad V_7 \quad I$

N. B. The seventh A must here be led upward to B.

The Chord of the Seventh with Altered Fifth.

§ 48. In every chord of the seventh, in which the fundamental tone, third and fifth form a major triad, the fifth can be altered. Accordingly, we can alter the fifth of the seventh-chords on the first, fourth, and fifth degrees in major, and on the sixth degree in minor :

$C: V_7 \quad C: IV_7 \quad C: V_7$
 $a: VI_7$

Of these chords, those on the first and fourth degrees in major, and the one on the sixth degree in minor, will only be employed in the fundamental position ; dispersed (or open)

harmony predominating. Ex. 332 exhibits the cadencing- and non-cadencing progressions of these chords :

332.

C: I₇ IV I₇ VI I₇ d: V C: I₇ VI I₇ IV C: IV₇ VII⁰

IV₇ II IV₇ G: V C: IV₇ B^b: I C: IV₇ II IV₇ II

The chords of the seventh on the first and fourth degrees, with altered fifth, may also be used in close position: however, they will seldom be used in this position in four-voiced writing.

The Chord of the Dominant Seventh with Altered Fifth

is not used in close position, as the raised fifth together with the small seventh of the chord produces the harsh dissonance of a diminished third. The augmented sixth, on the contrary, although a dissonance, is of good effect :

not good. good.

Of the inversions, the chord of the sixth-and-fifth, and the chord of the second are used more frequently than the chord of the fourth-and-third. The chord of the second also produces a good effect in close position; the other inversions are only to be used in open position. The pupil will observe the following rule :

Chords containing the Augmented Sixth can not be employed if this interval appears as diminished third or tenth in the inversions.

It is precisely the same whether the augmented sixth lies within the octave, or appears above this interval as the thirteenth tone from the fundamental tone :

334.

good. good. not so good.

C: V₇ V₇ V₇

The second inversion (chord of the fourth-and-third) of the chord of the dominant seventh, when the altered fifth of the original chord is preceded by the natural fifth, will not give a very satisfactory result, and is, therefore, seldom employed.

The progressions of this chord and its inversions are exhibited in Ex. 335 :

335.

C: V₇ I V₇ F: V₇ C: V₇ a: V C: V₇ d: II⁰

C: V₇ d: VII⁰₇ C: V₇ I V₇ a: V C: V₇ — I

C: V₇ — a: V C: V₇ I C: V₇ a: V C: V₇ d: VII⁰₇ etc.

The pupil will observe in Ex. 335, that in the practical application of these chords, it is advisable to give the altered tone

to the Soprano. As we are *now* compelled to avail ourselves of the open position in the working-out of our exercises, we must not fail to remark that in four-voiced writing, the open and close position will be used interchangeably, according to the momentary requirements of the leading of the voices. The words "open" and "close" position at the beginning of an exercise, refer only to the position of the first chord. Proceeding from this chord, the leading of the voices must be carried out in accordance with established rules, and both positions will be interchanged as the case may demand. To practically illustrate what has just been advanced, all subsequent examples in this chapter will be so indicated. We must here mention that the open position begins as soon as the three upper voices exceed the compass of an octave.

Examples.

336. Open position. Close position.

C: I V₇ - I - - IV - V₇ - I VII⁰₇ I II₇ V₇ I

337. Close position.

G: I - V₇ - e: V V₇ I G: V₇ -

O. p. C. p.

I I₇ IV₇ - II II₇ V V₇ III V I

e: I d: II^o₇ D: III V₇ I a: I VI₇ IV V₇ III' V₇
 VI -d: V₇ a: IV I IV VII^o₇ I - V III' V₇ I
 G: I - IV IV₇ II - III e: VII^o₇ D: II - V V₇ G: V V₇ I

CHAPTER XIII.

Chords of the Augmented Sixth, Sixth-Fourth-and Third, and Sixth-Fifth-and Third.

§ 49. When the fundamental tone of a minor triad is raised a chromatic half-step, and this chord so altered is given as the chord of the sixth (first inversion), we obtain the chord known as

The Chord of the Augmented Sixth,
which is much used :

340.

| | | |
|-------|----|----|
| C: II | II | II |
| a: IV | IV | IV |
| F: VI | VI | VI |
| d: I | I | I |

In the key of B^b major the triad on the third degree cannot be used as chord of the augmented sixth, because the altered tone D[#] cannot be regularly led upward a small half-step to e.

The chord of the augmented sixth can be given with doubled third, or doubled fundamental tone. The progressions are shown in the following examples :

Progression in C-major.

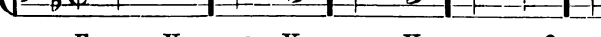
[illegible]

Progression in a-minor.

342. *C. p.* *O. p.* and others.

a: IV I IV I IV V IV V IV III' VII I IV I

Progression in F-major.

343. 

VI V VI V₇ VI V₇ VI VII⁰

and others.

Progression in d-minor.

344. C. p. O. p.

d: I VII⁰₇ I II⁰ I II⁰ I V I V₇ I VII⁰₇ I II⁰

and others.

Examples.

345.

C: I II I VI₇ II II₇ V₇ I I₇ -

IV d: V₇ I a: V d: VII⁰₇ I C: V₇ II V₇ I

346.

F: I V₇ VII⁰₇ d: V g: VII⁰₇ I VII⁰ I - VII⁰₇ I B.b I₇ IV -

g: I V c: vii^o₇ I bb: ii^o₇ V₇ B: I bb: I F: I V V₇ I

Exceptionally, the chord of the augmented sixth may also be used in the position of a chord of the sixth-and-fourth. The last measures of 346 might have been formed as follows:

B: I I bb: I F: I

The chord in its fundamental position is not effective in either open or close position, and is, therefore, very seldom used.

Exercises.

348. G: I — V₇ I a: iv III^o V₇ i e: V₇ VI G: ii V₇ V I

b. D: I g: iv D: I I₇ IV V₇ I a: iv V d: vii^o₇ D: I b: iv V V₇

c. i D: ii₇ V V₇ I a: i iv V I vii^o I vii^o₇ I vii^o

Figured bass notation for the first staff: 6 8 6, 6 8, 6 4 7, 7, d. 8 8 6. Roman numeral analysis: I - V, I - IV, I V V₇ I, d: I VII^o I IV.

Figured bass notation for the second staff: 7 8 7, 6 8 7, 6 8 7, 7^b 8 7, 7 8 7, 6 7 7. Roman numeral analysis: V IV V V₇, a: IV - V d: VII^o₇ I a: VII^o₇ d: I V₇ I.

All exercises under No. 348 can be worked out in close position.

The Altered Secondary Chord of the Seventh.

§ 50. If we add a third under the fundamental tone, or above the fifth of any triad, we obtain two chords of the seventh. If we proceed in this manner with a minor triad, the fundamental tone of which has been altered, we obtain the following chord formations :

349. C: II, a: IV, C: II, a: IV. Roman numeral analysis: II, IV, VII^o₇, II₇.

These chords of the seventh, with altered third and altered fundamental tone, can be employed in the two keys to which the chords naturally belong, both in the fundamental position as in all inversions. Nevertheless, the second inversion of the chord in Ex. 349 (a) is most used. From this inversion we obtain the chord called


The Augmented Chord of the Sixth-Fourth-and Third.

The resolutions of this chord both in major and minor are founded upon the progression of the natural, and not the altered chord of the seventh :

350. C: VII^o₇, I, a: II^o₇, V.


The progressions of the augmented chord of the sixth-fourth and third are similar to those of the augmented chord of the sixth. A few of these are exhibited in Ex. 351 :

Origin of the chord. Resolution in major. In minor.

351. 

$C: \Pi - C: \text{vii}^{\circ}_7 \text{vii}^{\circ}_7 C: \text{vii}^{\circ}_7 \text{I} \text{vii}^{\circ}_7 \text{I} a: \text{ii}^{\circ}_7 \text{V}$
 $a: \text{IV} - a: \text{ii}^{\circ}_7 \text{ii}^{\circ}_7$

Modulatory progression.



$\text{ii}^{\circ}_7 \text{I} \text{ii}^{\circ}_7 \text{III}^{\circ}_7 \text{ii}^{\circ}_7 \text{III}^{\circ}_7 C: \text{vii}^{\circ}_7 F: \text{V}_7 C: \text{vii}^{\circ}_7 d: \text{vii}^{\circ}_7$
 $a: \text{ii}^{\circ}_7 a: \text{ii}^{\circ}_7$ etc.


The first inversion of the chord shown in Ex. 349*b* gives us the chord called the

Augmented Chord of the Sixth-Fifth-and Third;

or abbreviated, chord of the augmented sixth and fifth. It is resolved in major, like the chord of the augmented sixth-fourth-and-third into the tonic triad.

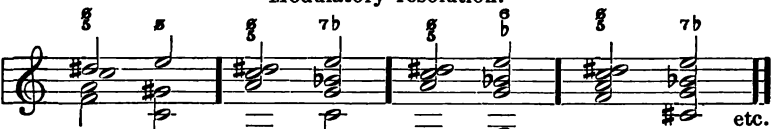
In Ex. 352 we give the natural and other resolutions of it :

Resolution in major. Resolution in minor.

352. 

$C: \Pi_7 \text{I} \Pi_7 \text{I} a: \text{IV}_7 \text{I} \text{IV}_7 \text{I} \text{IV}_7 \text{III}^{\circ}$

Modulatory resolution.



$\text{IV}_7 \text{III}^{\circ} C: \Pi_7 F: \text{V}_7 C: \Pi_7 F: \text{vii}^{\circ} C: \Pi_7 d: \text{vii}^{\circ}_7$
 $a: \text{IV}_7 a: \text{IV}_7 d: \text{ii}^{\circ} a: \text{IV}_7$ etc.

Second inversion.

$C: II_7$ I $a: IV_7$ III° V_7 $a: IV_7$ $d: II^\circ$ $a: IV_7$ $f: V_7$

Third inversion.

$C: II_7$ I $a: IV_7$ V $a: IV_7$ I IV_7 III° V_7

IV_7 $d: VII^\circ_7$ $a: IV_7$ $F: V_7$ $a: IV_7$ $d: V$

Examples.

355.

$C: I$ II_7 I IV I V_7 I V_7 $a: V$ V_7

VI_7 II°_7 IV_7 $-$ $C: III$ $a: VII^\circ_7$ I $C: II_7$ III V_7 I

356.

F: I V IV V₇ I IV III *d*: VII⁰₇ I *f*: IV II⁰₇ IV₇

F: I IV I C: V₇ *f*: IV₇ *F*: I IV III V₇ I

357.

e: I IV₇ I *d*: VII⁰₇ C#: IV₇ I *d*: V₇ *e*: IV₇ V I IV IV₇ I V V₇ I

Exercises.

C. P.

358.

a: I VII⁰ I *e*: IV₇ I V₇ *a*: VII⁰₇ I IV₇ I *e*: VII⁰₇ *a*: V

I IV I IV₇ — II⁰₇ I V V₇ I

C. P.

VII⁰₇ I V₇ I C: VII⁰₇ II₇ I V I VI₇

G: V₇ III *e*: VII⁰₇ I IV₇ — G: I II₇ *d*: VII⁰₇ G: V I

C. P.
c. 8

d: I IV₇ V V₇ g: VII₇ a: II₇ I e: VII₇ V₇ a: V

g 4 # 3 7b 5b 6 4 7 6 5b

VI g: II₇ V I d: II₇ I II₇ a: VII₇ IV

g 4 # 6 5b 4 7 7 4

C. P.
d. 8

d: II₇ — V I c: I V₇ IV IV

g 4 # 7 6 5b 4 7 6 5b

IV₇ I II₇ V f: VII₇ V₇ c: IV IV₇ I IV₇

g 4 # 7b 5b 6 4 7 6 5b

II₇ V I — VI₇ IV₇ II₇ V I

g 4 # 7 6 5b 4 7 6 5b

CHAPTER XIV.

The Suspension.

§ 51. Every suspension is an accidental chord-formation. Two kinds of suspensions are to be distinguished, viz.: the simple, formed with one voice, and the compound, formed with two or three voices.

A suspension arises when one or more voices remain on a tone of the preceding harmony, while other voices sound intervals of the new chord. When in this way a dissonant chord-formation occurs which we do not recognize as a fundamental

harmony, or as a derivative altered chord, we call it a suspension, thus :

359.

C: I V I V I VII°- I V₇

However, cases occur in which the connection of two chords already known to us may assume the character of a suspension without producing a dissonance. This frequently happens if such a chord-connection succeeds to suspensions, or occurs within a sequence of suspensions, e. g. :

A. B. C. D.

360.

F: I V IV I V₇ g: V III° I F: V V₇ I

The measures A, B, C in the above example give the impression of being real suspensions; although the chords contained in them must be considered fundamental harmonies, thus :

361.

VI I V V₇ g: III° V

On the contrary, the two chords in measure D, Ex. 360, can much more easily be regarded as a double suspension than

as two fundamental harmonies. This is to be attributed, on the one hand, to the dissonance of the first chord in the measure, and on the other (as is the case in measures A, B, C) to the fact that suspensions have preceded. In these, the dissonance is heard on the first, the real harmony on the *second* half of the measure; therefore we expect—although the first half of measures A and B do not contain a dissonance—the essential and real harmony on the second half of the measure, even when, as in measure B, a complete consonant chord appears on the first half of the measure, and the dissonance of a seventh on the second.

For the preparation and resolution of the suspension, the following rules must be strictly observed :

1. The suspension must be prepared in the same voice in which it resolved. Each interval of a triad or seventh-chord will serve as a means of preparation.*

2. The resolution-tone of the second suspension cannot be contained in any other voice than the Bass—in the suspension of the ninth before the octave (9 8).†

3. From rule 2 we see that the resolution-tone can never be contained in an upper voice, when the suspension lies in the Bass.

4. The suspension does not remove (permit) parallel octaves, which are only delayed by it.

5. The regular resolution of the suspension ensues diatonically downward.‡

The designation of suspensions in Thorough-bass notation is purely mechanical. The suspension will be indicated over the Bass by those figures with which it forms an accidental interval with the Bass. This suffices for the suspension before the

* Those sevenths which cannot enter free must be themselves prepared before they can serve as preparation for a suspension.



† A single exception will be explained farther on.

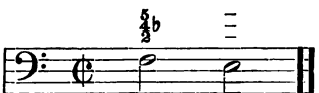
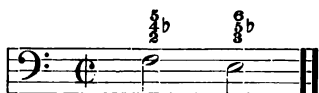
‡ Those cases in which suspensions resolve diatonically upward, or by a skip, are exceptions, of which we shall speak farther on. In general principle, the sevenths and suspensions have this in common, that, being dissonances, they must be prepared and resolved diatonically downward.

fundamental position of a triad: the other intervals of the chord will then be indicated only by figures over the Bass with the designation of the suspension, i. e.: when this becomes necessary in the inversions of the chord. With the chords of the seventh, in their fundamental position, as well as in their inversions, the respective figures must be written with the figure *necessary* for the suspension. The figure 7 before 6 merely indicates the suspension of the seventh before the sixth of a chord of the sixth, as $\frac{7}{6}$ before $\frac{4}{2}$, the suspension of the fifth before the fourth, and $\frac{7}{4}$ before $\frac{2}{2}$, the suspension of the seventh before the sixth of a chord of the sixth-and-fourth.

More complete designation can also be given, so that with the figure indicating the suspension, precise figures may be given for other intervals of the chord. The suspension before the octave of the triad can be indicated in short by 9 before 8, or, more accurately, by $\frac{9}{8}$ before $\frac{8}{8}$, or even $\frac{9}{8}$ before $\frac{8}{8}$; the suspension before the octave of a chord of the seventh is only indicated by $\frac{9}{7}$ before $\frac{7}{7}$, or $\frac{9}{7}$ before $\frac{7}{7}$, or for minor, $\frac{9}{7}$ before $\frac{7}{7}$; the inversions of the chords will be similarly treated. This will be demonstrated in the following examples.

When the suspension lies in the Bass, the accidental intervals of the upper voices, arising from the note of suspension, are indicated by their respective figures over the Bass-note, e. g.: $\frac{5}{2}$ =, $\frac{5}{2}$ =. As the dashes denote the continuation of the intervals (notes) of the upper voices after the resolution of the suspension, it is equally good whether we write:

362.  or. 

363.  or. 

To illustrate more clearly what has just been written with

regard to the suspensions, we shall here give a few examples concerning the rules :

Concerning Rule I.

Suspension before the octave of the fundamental tone of the triad.

364. In the Soprano. in the Alto. in the Tenor. in the Bass.

C: V I V I V I V₇ I

The suspension in the Bass, as it appears in the last measure of Ex. 364, may either be conceived of as a suspension, or as a chord of the second of the seventh-chord on the third degree with the omission of the fifth of the original chord. In both cases, the Bass-note *had* to be prepared and resolved diatonically downward ; the resolution-tone of the Bass-note, no matter whether we consider it as seventh, or note of suspension — must not be doubled in any of the upper voices.

Suspension before the third of a triad.

365. In the Soprano. in the Alto. in the Tenor. in the Bass.

C: I V I V I V I V

Suspensions before the fifth of the triad will only assume the character of such when they *follow* suspensions, or appear in the midst of them, as the essential character of the suspension,

the dissonance, is wanting. They can properly be distinguished by a double indication under the Bass.

Suspension before the fifth of the triad.

In the Soprano. in the Alto. in the Tenor. in the Bass.

366.

C: I V I V I V I III

C: I III V I III V I III V I I III

Suspensions before the Intervals of the Chord of the Seventh.

§ 52. The suspension before the octave of the fundamental of the seventh-chord, exhibits that accidental chord-formation, formerly known as the chord of the ninth. We do not feel justified in acknowledging the existence of such a chord, which in four-voiced writing can *never* be given with all its intervals, and which always proves to be a suspension of the ninth before the octave in triads or chords of the seventh. In triads, the seventh of the chord of the ninth is wanting: in chords of the seventh, the fifth or third.

367.

C: V I IV V₇ II₇ V₇

Even in five-voiced writing (in the strict style) the chord could not be employed without the preparation of its dissonant intervals — the seventh and ninth. When these intervals are prepared, the chord-formation must be regarded as a double

suspension, $\frac{7}{8}$ before $\frac{8}{8}$. (The double suspensions will be explained in the next chapter.)

368.

C: IV V₇ III V₇ I

The ninth can only enter free, i. e.: unprepared, over an organ-point in the Bass, or by a stationary upper voice, which is equivalent to an organ-point.

369.

Organ-point in the Bass: or:

370.

Stationary voice in the Tenor: or:

All such chord-formations are, like the suspension, only accidental.

We now exhibit suspensions before the various intervals of the chord of the seventh:

Before the octave of the fundamental.

In the Soprano.

371. *In the Soprano.*

C: IV V₇ II V₇ I II₇

in the Alto.

in the Tenor.

N. B. in the Bass.

N. B. It is exactly the same, whether this measure be taken as a suspension, or as a chord with the following designation :

372.

$C: IV \quad vii^{\circ}7 \quad V_7$

Suspension before the third of the chord of the seventh.

In the Soprano.

in the Alto.

373.

a: I V₇ — VI I V₇ — I V₇ —

in the Tenor.

in the Bass.

VI vn^o₇ — IV₇ vn^o₇ — I vn^o₇ —

Suspension before the fifth of the chord of the seventh.

In the Soprano. in the Alto. in the Tenor. in the Bass.

374.

a: I V₇ — I V₇ — I V₇ — I VII⁰₇ —

Suspension before the seventh of the chord of the seventh.

In the Soprano. in the Alto. in the Tenor.

375.

F: I d: VII⁰₇ — F: I d: VII⁰₇ — a: IV IV₇ — V I

in the Bass. N. B. a. b. c.

C: V a: VII⁰₇ — V₇ a: I F: V₇ — F: I V₇ — I V₇ —

The succession of chords given at N. B., a, b, c, only assume the character of suspensions when they appear in the midst of other suspensions. The pupil must always bear this in mind, otherwise he will fail to obtain that clear and *precise* idea of the *true* suspension which he must endeavor to obtain.

Concerning Rule II.

Faulty examples together with their corrections.

376.

wrong. correct. wrong. correct.

C: V VI₇ V VI₇ F: VII⁰₇ I VII⁰₇ I

wrong. correct. wrong. correct.

a: II⁰₇ I II⁰₇ I C: IV V₇ IV V₇

We now state the exception, i. e. : the fundamental tone of any one of the three primary triads can be contained in a middle voice, when an upper voice forms a suspension with this fundamental tone. The fundamental tone must then, however, be prepared, and be distant a ninth from the suspension. A suspension of this kind will mostly appear in a sequence of suspensions, or, in any event, after a well-connected succession of chords, e. g. :

377.

G: I V IV

Suspension before the fundamental tone of the tonic triad.

378.

C: I V₇ I II₇ I V₇ I

Suspension before the fundamental tone of the dominant triad.

379.

C: I V VI₇ V V₇ I V I

Suspension before the fundamental tone of the subdominant triad.

380.

C: I II VII₇ V₇ IV I V₇ I

Numbers 364, 365, 366, etc., contain enough examples for elucidating rules 3 and 5. For rule 4 we subjoin Ex. 381:

381.

C: V₇ I V₇ I

On the contrary, parallel fifths, which are delayed by the suspension, are *never* unsatisfactory : in otherwise correct leading of the voices, they are even admissible in the outer voices.

382.

Not to be condemned. good. good.

a: IV_7 V_7 IV_7 V_7 VI V_7

The suspension in the Bass takes place oftenest before the third of a chord of the sixth, or a chord of the sixth and fifth ; seldom, however, before the fifth of the original chord in the chord of the fourth and third, or before the fundamental tone of a chord.

383.

Suspension in the Bass
before the third of
the triad : of the chord of the seventh :

F: I V I V_7 I d: vii°_7

before the fifth of the chord of the seventh : before the fundamental tone of the triad : of the chord of the seventh :

F: I V_7 I d: vii°_7 F: V_7 I $V_7g: vii^\circ_7$

A suspension can be sustained through several chords, e. g. :

384.

C : I II₇ e : VII⁰₇ VI c : IV₇ e : II⁰₇ I a : VII⁰₇ I

For the sake of completeness, we conclude by adding the following remarks :

The real resolution-tone of the suspension can, at times, be entirely omitted :

385.

F : V₇ I — VI a : V₇ — d : V₇ G : V₇ — C : V₇ I

Between the suspension and the resolution, various tones can be inserted ; e. g. :

386.

G : IV V₇ — C : V₇ VI II₇ V I

The suspension 2 before 1 will exceptionally be found in classical compositions, written for mixed four-voiced chorus :

387.

C: I V I -

But this is only an expedient, as the Bass-voice cannot reach the large C, an octave lower. The suspension 2 before 1 is, therefore, to be avoided, on account of the close proximity of the dissonant tones ; and, moreover, is absolutely forbidden between the upper voices.

Examples.

388.

F: I IV I V₇ I V VI₇

N. B. compare Ex.356.

F: I IV I V₇ I V VI₇

389.

5 4 3 7 8 9 8 7 6

d: I V I VII°₇ I VII°

6 8 9 8 7 6 4 3 2

F: VI d: IV I V I

390.

3 7 6 5 7 6

g: I V₇ VI V₇

4 3 9 8 7 6 7 6 5

I IV I V₇ I

391.

G: I V₇ I IV D: V₇ I

G: IV V₇ I II₇ V₇ I

392.

C: I V₇ I V V₇ I V₇

I I₇ IV I V I

393.

$B^b: I \quad V \quad V_7 \quad I \quad - \quad g: V_7$

$I - c: V_7 \quad I - V_7 \quad I - VII^O \quad I - f: VII^O_7$

$F: I - e^b: VII^O_7 \quad E^b: I - f: VII^O_7 \quad F: I - c: VII^O_7 \quad I - B^b: V_7$

$I - g: V_7 \quad I \quad VI \quad F: V_7 \quad B^b: I - VI_7 \quad II - V_7 \quad I$

394.

$d: I \quad V_7 \quad I \quad V_7 \quad I \quad g: V_7 \quad I \quad V_7$

4 3 9 8 7 6 7^b 5 4 b 9^b 8 7 8

I VII° I c: VII°₇ I g: I d: V₇

6 6 3 6 4 7 4 7 5

I V I g: V₇ I V I a: VII°₇ d: I V₇ I

Exercises.

395. C. P. O. P.

a. 5 8 7 6 6 7 6 7 6 8 4 8

C: I VII° I V₇ I II₇ V V₇ I

b. C. P. O. P.

7 6 7 6 7 6 7 6 7 6 7 6

IV₇ II I V₇ I C: I IV₇ II₇ V₇ I

C. P.

7 8 7 8 7 8 7 8 7 8 7 8

II₇ V₇ I a: V₇ I d: VII°₇ I G: V₇ I — a: VII°₇ I C: I₇ IV

6 7 6 7 7 6 7 6 7 6 7 6

I V₇ I d: VII°₇ V V₇ D: I — C: II VII°₇ V₇ — I II₇

9 8 7 \hat{c} O. P. C. P. \hat{c} 5 4 3 2 1 2 3 4 5 6 7 8 9

V — V₇ I a: I V V₇ I C: VI₇ IV₇ II₇ —

4 3 2 1 5 7 6 5 4 3 2 1 C. P. d. 8 6

a: V VII⁰₇ I — II⁰ — IV V₇ III⁰ V I Bb: I —

7 4 3 2 1 2 3 4 5 6 7 8 9 7b 6b 5b 4b 3b 2b 1b

V₇g: VII⁰₇ I — V₇ VI c: V₇ I — Bb: II₇ V₇ Eb: V V₇

9 8 7 6 5 4 3 2 1 C. P. e. 8 6 4 3 2 1

Bb: II — II₇ V₇ I e: I — V VI a: V₇

4 3 2 1 2 3 4 5 6 7 8 9 7 6 5 4 3 2 1

I e: V₇ I IV II⁰₇ I V a: V₇

9 8 7 6 5 4 3 2 1 C. P. f. 8 6 5 4 3 2 1

I e: I V I e: I V I IV V₇

4 3 2 1 2 3 4 5 6 7 8 9 7 6 5 4 3 2 1 C. P. g. 5 4 3 2 1

I G: VI₇ e: II⁰ IV V₇ III⁰ V I d: I — g: V₇ I — c: V₇

9 8 7 6 5 4 3 2 1 2 3 4 5 6 7 8 9 7 6 5 4 3 2 1

VI f: V₇ I c: I — g: IV₇ V d: I IV₇ II⁰₇ — V V₇ I

C.P.
h. 3 6 7 5 4 3 6 9 8 6 9 8 9 8 4 3

Bb: I — V₇ VI II II₇ V I I₇ IV I V I

O.P. i. 5 7 9 8 6 9 8 6 7 6 7 5 4 3 6 9

g: I IV bb: II₇ V₇ Bb: I g: I — IV₇ II^o IV₇ — V I c: V₇

C.P. k. 4 3 8 7 9 8 7 5 6 5 4 3

I g: IV₇ I IV₇ — I V I F: I I₇ IV — I c: II^o₇

C.P. 4 3 7 6 4 3 7 5 9 8 7 6 7 5 6 5 4 3

V — F: V₇ I II d: V₇ g: V₇ C: V₇ F: V₇ d: VII^o₇ I f: II^o₇ F: I V I

C.P. i. 8 6 9 8 6 9 7 5 9 8 7 6 5 4 3

C: I — IV VII^o VII^o₇ a: V d: V V₇ C: II II₇ V₇ I

CHAPTER XV.

Suspensions in Two and Three Voices.

§ 53. When carefully prepared, suspensions can be given to two and three voices in four-voiced writing. The accidental intervals, which form the tone of suspension against the Bass-note, will then be indicated by the corresponding figures in such a manner, that the *larger* figures will always be written over the

The Bass moves frequently simultaneously with the resolution of the suspension to another tone, which is either another interval into which the chord is resolved, or an interval determining a new chord. In both instances, the suspension alone will be indicated; its natural and regular resolution diatonically downward being always pre-supposed. In case another position of the chord of resolution, or a *new* chord is to be given with the resolution of the suspension, *this* must be indicated over the Bass with the respective figures:

Examples.

399.

C: I V₇ I V I V₇ I a: V₇

400.

E: I VII° I IV - VI II₇ IV III - c#: VII° I - E: II₇ -

III V c#: VII° I IV₇ B: V₇ E: V₇ I

foreign to the harmony can be diatonically inserted: these are called passing notes.

402.

C: I V I

When passing notes are placed in an upper voice, the accidental intervals which they form with the Bass, must be indicated by the respective figures over the Bass:

403.

C: I V V₇ I

Ex. 402 and 403 show that even when passing notes are written in one voice, accidental chord-formations can appear.

This is still oftener the case when passing notes are written at the same time in several voices, thus:

404.

C: I IV I

Passing notes and chords occur mostly on the unaccented part of the measure.

“Unharmonious” notes (notes foreign to a chord) preceding a chord diatonically, either on the accented or unaccented part of a measure, are called

Changing Notes.

405.

C: I V₇ I

Passing notes can not be employed in pure harmonic four-voiced writing ; they always give an impression of unprepared suspensions.

The Organ-Point.

§ 55. When a number of chords and accidental chord-formations move over a stationary Bass, for several measures or so, it is called an organ-point. The organ-point must begin on a rhythmical- and metrical-bounded part of a composition : it can appear either at the beginning, in the middle, or at the end of a musical phrase. However, it must always begin with a consonant chord. The tonic or the dominant of the key in which the piece is written is the best adapted Bass-tone for an organ-point. Occasionally the organ-point can take and hold the two aforesaid tones as foundation in such a manner that the dominant lies in the Bass over the tonic. In Thorough-bass notation, the chords and accidental chord-formations passing over a stationary Bass are always reckoned from the tonic, and accordingly so designated. The close of the organ-point will best be formed (as its entrance) on a rhythmical- and metrical-bounded part of a composition.

When the sustained tone lies in one of the upper voices, accompanied by chords and accidental chord-formations, (see Ex. 379) it is called a

Stationary Voice.

The first three measures of the following example furnish us with an organ-point over the tonic. In measures 4–7 we find passing tones. Measures 8 and 9 contain an organ-point over the dominant, measures 10 and 11, an organ-point over the tonic and dominant. The last measures exhibit a stationary voice in the Soprano :

406.

The musical score consists of four systems, each with a grand staff (treble and bass clefs). The key signature is one flat (B-flat). The first system is labeled '406.' and contains measures 1 through 11. The second system contains measures 12 through 15. The third system contains measures 16 through 19. The fourth system contains measures 20 through 23. The score includes figured bass notation (numbers 1-7) and various musical symbols such as notes, rests, and bar lines. The first system shows an organ-point over the tonic in measures 1-3, passing tones in measures 4-7, an organ-point over the dominant in measures 8-9, and an organ-point over the tonic and dominant in measures 10-11. The last measures exhibit a stationary voice in the Soprano.

We now subjoin a few examples concerning the organ-point, from which the pupil can form an idea how he should work out his exercises.

Examples.

407.

8 7 = 8 4 5 7 5 6 4 7 5 6 8 =
8 4 5 5 4 5 5 4 5 =

6 4 6 8 6 4 7 8 6 7

8 4 7 5 8 4 5 4 5 6 8 4 3 2 3

408.

5 4 5 7 5 5 7 6 7 5 6 7 5 6 8
5 4 5 5 5 5 5 6 5 5 5 5 5 5 5

8 4 5 4 6 7 3 4 6 4 8 4 7 4 9 4 8 4



Exercises.

409. a.

b.

Chords in their Relation to Modulation.

§ 56. With the single exception of the chord of the seventh on the first degree in minor, (so very seldom used as fundamental harmony), we have found every chord to belong to different keys. This close relationship of the chords to various keys offers considerable latitude in harmonic connections for transient modulations in a composition.

The manifold relations of the chords among themselves open up an extensive field for modulating from one key to a foreign

(frequently very remote) key. The enharmonic change of a single tone of a chord serves as a bridge for the transition into a foreign (entirely unrelated) key. The examples in Number 410 will serve to give the pupil a clear insight into the innumerable relations of one chord to different keys.

410.

| The major triad. | the minor triad. | the diminished triad. | the same, enharmonically changed. | |
|--|---|--|-----------------------------------|-----------------------------------|
| | | | | |
| C: I
F: V
G: IV
e: VI
f: V | a: I
e: IV
C: VI
G: II
F: III | C: VII ^o
c: VII ^o
a: II ^o | f#: VII ^o ₇ | eb: VII ^o ₇ |

| the major triad with augmented fifth. | the same, but enharmonically changed. | the minor triad with altered fifth. | the same, enharmonically changed. | |
|---|--|---|-----------------------------------|---|
| | | | | |
| C: I
a: III [*]
G: IV
F: V
E: VI | f: III [*]
Ab: I
Db: V
Eb: IV
c: VI | E: I
c#: III [*]
A: V
B: IV
g#: VI | C: II
a: IV | Bb: I
Eb: V
F: IV
d: VI
eb: V |

| Triad with altered fundamental tone. | the same, enharmonically changed. |
|--------------------------------------|--|
| | |
| C: II
a: IV
F: VI
d: I | Bb: V ₇
bb: V ₇ |

| the chord of the dominant seventh. | the same, enharmonically changed. |
|--|---|
| | |
| C: V ₇
c: V ₇ | C: I ₇
D: II ₇
G: VI ₇
b: IV ₇ |

manner of a deceptive cadence between the chords on the second and fifth degrees — be inserted, e. g. :

413.

C: II₇ I V I II I V₇ C: II₇ I V₇ I
 (b): VII°₇
 (c): II°₇

§ 58. The first means by which to arrive at a foreign key will be the chord of the dominant, or chord of the dominant seventh having the leading tone of this key. For this purpose, we select a chord related to both keys, one which has a tone or more in common with them, and use it as a bridge to pass over to the chord of the dominant seventh. As the first and most simple means for making a modulation, we employ an independent triad.

We will now show the manner in which we can modulate from one key to another, a half-tone higher in the scale :

414.

C: I f: I Db: V₇ I
 f: V Db: III

From the double designation under the Bass, the relation of the chords to different keys becomes evident. The tonic triad in C major is at the same time dominant triad in f minor, and, again, the tonic triad in f minor is the triad on the third degree in D^b major. As the triad on the third degree has two tones in common with the chord of the dominant seventh of D^b major, the connection of these two chords is thereby facilitated and brought about naturally.

It is evident that we can modulate in the same manner from c-minor to D major, or from C major to c# minor, and, likewise, from c-minor to c# minor; and that, by a similar process we can take every tone of a key and arrive at another key a half-tone higher. If we add the closing cadence to a transition of this kind, effected by the simplest means, we obtain a short, but sufficiently definite modulation, e. g. :

N. B.

415. 

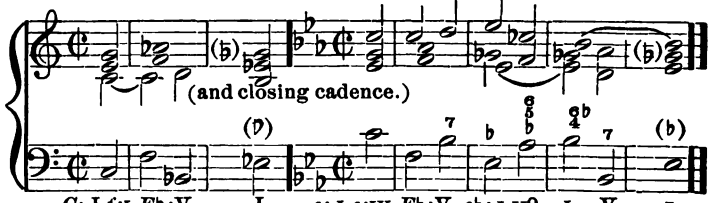
 C: I IV D♭: V₇ C#: I IV I V₇ I
 D♭: III

N. B. In the above example, the triad on the fourth degree takes the place of the chord of the seventh on the second degree, the fundamental tone of which is here omitted. If we wish to modulate to a key a *whole* tone higher, we can also use a triad for the connection with the seventh-chord of the new key we desire to reach, thus :

416. 

 C: I III d: V₇ I c: I g: I d: V₇ d: I II°₇ V V₇ I
 D: V₇ (cadence follows.)

In the following manner we reach the key a small third above :

417. 

 C: I f: I Eb: V₇ I c: I c: IV Eb: V₇ Eb: I II°₇ I₇ V I
 f: V Eb: II Eb: V₇ Eb: II

A modulation to the key a large third above is shown in the following Ex., 418:

418.

etc.

7 (♯) 7 (♯) etc.

C: I VI E: V₇ I c: I VI e: V₇ I
e: IV e: V₇ I E: V₇ I

To the key a perfect fourth upward as follows:

419.

etc.

4 (b) (b) 4 (b) 7 (b) 7 (b) 7 (b)

C: I VI F: V₇ I c: I VI f: V₇ I II₇ I V₇ I
F: V III f: V₇ I A♭: III I F: V₇ I II₇ I V₇ I

To the key of an augmented fourth, or a diminished fifth:

420.

etc.

(b)

C: I V F#: V₇ I c: I f#: V₇ I
G: IV I

To the key a perfect fifth above:

421.

etc.

7 (b)

C: I VI G: V₇ I A♭: c: I VI g: V₇ I
G: II I G: V₇ I

To the key of a small sixth :

422.

$C: I$ V $A\flat: V_7$ I
 $c: I$ V $a\flat: V_7$ I

To the key of a large sixth :

423.

$C: I$ V $A: V_7$ I
 $c: I$ V $a: V_7$ I

To the key of a small seventh :

424.

$C: I$ $f: I$ $B\flat: V_7$ I
 $c: I$ $c: IV$ $b\flat: V_7$ I

To the key of a large seventh :

425.

$C: I$ III $B: V_7$ I
 $c: I$ $E\flat: I$ $b: V_7$ I
 $E\flat: VI$

§ 59. As the major and minor triads already offer ample means for modulating into all keys, the augmented and altered triads, the secondary chords of the seventh, (particularly the chord of the diminished seventh), will even prove considerably

more pliant means for modulating. The transition as exhibited in Ex. 425, would have sounded less harsh, if other chords had been employed.

426.

The musical score for Example 426 consists of four systems of piano accompaniment. Each system is written for a grand piano, with a treble staff and a bass staff. The notation is complex, featuring many sharps and naturals, indicating frequent modulations. The first system begins with a treble staff containing a series of chords and a bass staff with a single note. The second system continues with more complex chordal structures. The third system shows a transition with a key signature change. The fourth system concludes with a final chord.

All the means for modulation exhibited in Ex. 426 lead directly to a definite goal; they can be used purposely to lead at once to a foreign key. Nevertheless, some of these will not suffice even when skillfully applied for modulating and closing

in a very distant key. In a composition of any length, we should do better to touch only upon the keys related to the key in which it commenced, and, in this manner, approach gradually the foreign key we wish to reach, afterward closing in that key. The completeness of the close can be considerably strengthened by an organ-point, which, however, must not be too extended, and should principally be confined to chords of the new key. The organ-point frequently ends with a plagal close, concerning which we will now offer a few remarks.

§ 60. The Plagal Close.

depends chiefly upon the progression of the sub-dominant triad to the tonic triad.

427. 

C: IV I IV I

In this close, the sub-dominant triad is most used ; its fundamental position is best adapted for this. If the plagal close is formed in a minor key, it is preferable to close with the major tonic triad.

It was more customary with the old masters to employ the plagal close in this manner than it is now among modern composers.

Other chords, the bass of which leads from the sub-dominant to the fundamental tone of the major tonic triad, will be more or less adapted for the formation of a plagal close. It is especially this leading of the bass which characterizes the plagal close, so that under certain circumstances even the succession of the dominant seventh-chord and the tonic triad loses the character of the authentic close, and assumes the appearance of a plagal close :

428. 

C: V₇ I V₇ I V₇ I

We now in Ex. 429 exhibit several other chords with which the plagal close can occasionally be formed.

429.

C: II I II I II I II⁷ I II⁷ I

II⁷ I II⁷ I II⁷ I VII⁰₇ I VII⁰₇ I

VII⁰₇ I VII⁰₇ I c: II⁰₇ C: I c: II⁰₇ C: I c: II⁰₇ C: I

c: VII⁰₇ C: I c: VII⁰₇ C: I f: II⁰₇ C: I c: VI C: I a: V₇ C: I and others.

In a modulation, the use of suspensions, chords of the seventh, occasionally also passing notes, will prove very efficient in

mitigating the harshness of the succession of some chords, and of forming a more intimate connection of the harmonies, thus :

430. N. B.

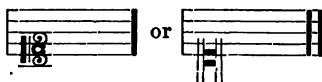
C : I I₇ e : II^o₇ f# : VII^o₇ IV VII^o₇ V₇ D : III III₇ VI

f# : I V₇ VI b : V₇ I f# : V₇ I B : V₇ I f# : II^o₇ F# : I

N. B. The parallel movement of all voices from measure 2 to 3 is here not to be condemned, as all voices progress a half-step. In this instance, the parallel movement (in every direction) of two chords of the diminished seventh is allowed.

The pupil should now attempt — first by writing, then at the piano or organ — to compose short and afterward more extended modulations, both direct and indirect.

For those pupils who wish to extend their theoretical studies beyond the study of harmony, we add at the close of this book a table of the old C clef: it will be used in counterpoint for the arrangement of the three upper voices in a score. The sign for the C clef is :



According to the line on which the clef is placed, the one-

lined \bar{c} is implied : for the soprano it is placed on the first line, for the alto, on the second line, and for the tenor, on the third line. The representation of this clef and the notes on it is given in Ex. 431 :

431.

SOPRANO.

$\bar{b} \quad \bar{c} \quad \bar{d} \quad \bar{e} \quad \bar{f} \quad \bar{g} \quad \bar{a} \quad \bar{b} \quad \bar{c} \quad \bar{d} \quad \bar{e} \quad \bar{f} \quad \bar{g} \quad \bar{a}$

ALTO.

$c \quad d \quad e \quad f \quad g \quad a \quad b \quad \bar{c} \quad \bar{d} \quad \bar{e} \quad \bar{f} \quad \bar{g} \quad \bar{a} \quad \bar{b} \quad \bar{c} \quad \bar{d} \quad \bar{e}$

TENOR.

$c \quad d \quad e \quad f \quad g \quad a \quad b \quad \bar{c} \quad \bar{d} \quad \bar{e} \quad \bar{f} \quad \bar{g} \quad \bar{a} \quad \bar{b}$

In conclusion, we feel constrained to remark that a knowledge of the rules, tenets and hints contained in this book can only be achieved by careful and persistent consideration of the examples therein presented, and assiduous working-out of the exercises. If this be done, the musical student will be amply repaid by having obtained a sterling knowledge of the substratum of Composition. He should now commence the study of Counterpoint; text-book by Jadassohn.



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